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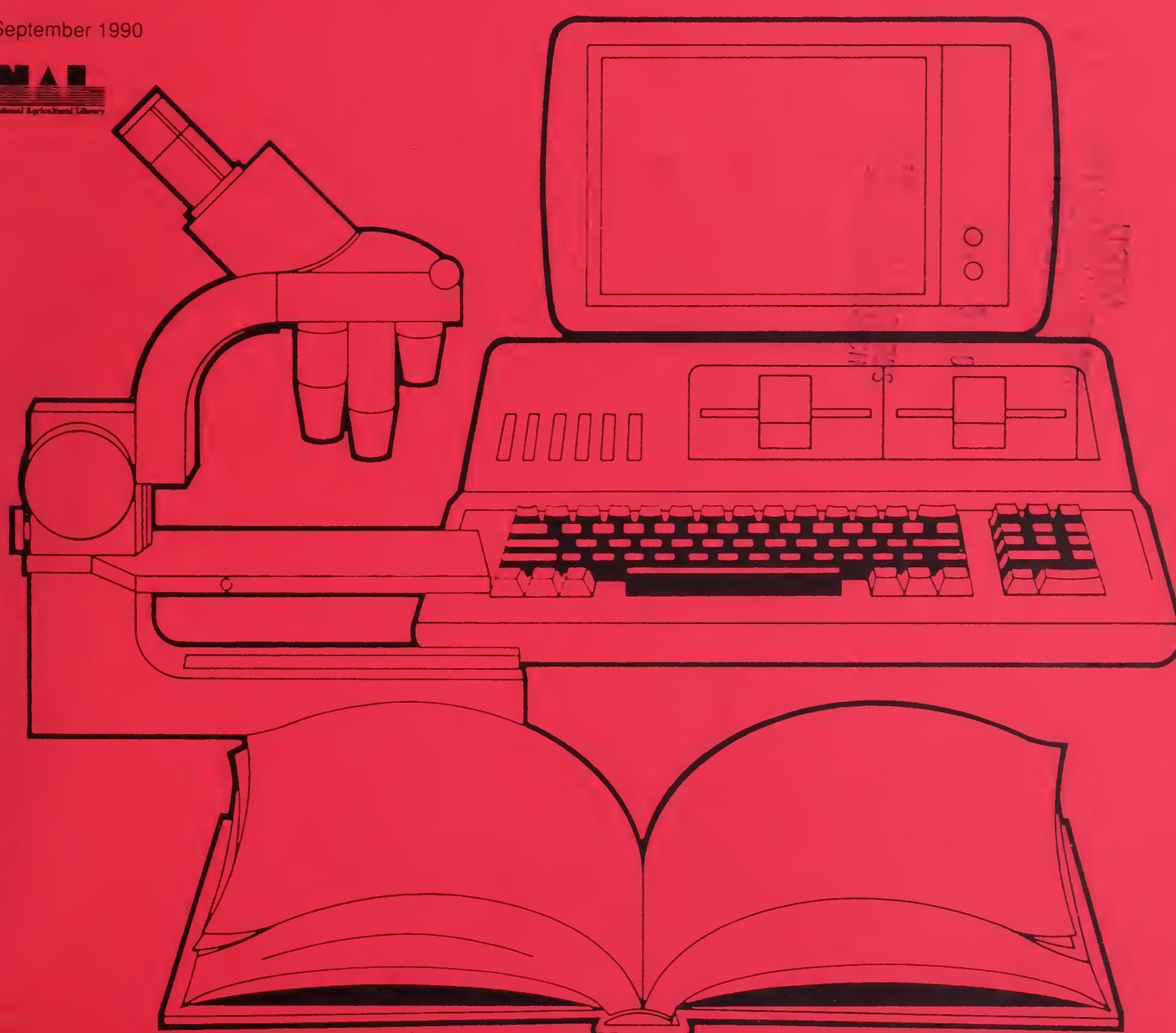
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Bibliographies
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of Agriculture
Number 101

September 1990

The Protection of Minor Vegetable Crops, 1985-1989

Citations from AGRICOLA Concerning
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National Agricultural Library

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FOREWORD

This is the 36th volume in a series of commodity-oriented environmental bibliographies resulting from a memorandum of understanding between the U.S. Department of Agriculture, National Agricultural Library (USDA-NAL), and the U.S. Environmental Protection Agency, Office of Pesticide Programs (EPA-OPP).

This close working relationship between the two agencies will produce a series of bibliographies which will be useful to EPA in the regulation of pesticides, as well as to any researcher in the field of plant or commodity protection. The broad scope of information contained in this series will benefit USDA, EPA, and the agricultural community as a whole.

The sources referenced in these bibliographies include the majority of the latest available information from U.S. publications involving commodity protection throughout the growing and processing stages for each agricultural commodity.

We welcome the opportunity to join this cooperative effort between USDA and EPA in support of the national agricultural community.

JOSEPH H. HOWARD, Director
National Agricultural Library

DOUGLAS D. CAMPT, Director
Office of Pesticide Programs

INTRODUCTION

The citations in this bibliography, The Protection of Minor Vegetable Crops, are selected from the AGRICOLA (AGRICultural OnLine Access) database limited to those produced by North American authors. They cover articles or monographic publications added to the database from 1985 - 1989.

This is the 36th bibliography in a series of commodity-oriented listings of citations from AGRICOLA jointly sponsored by the U.S. Department of Agriculture, National Agricultural Library (USDA-NAL), and the U.S. Environmental Protection Agency, Office of Pesticide Programs (EPA-OPP). Additional volumes issued recently include The Protection of Cotton, 1985 - 1989, The Protection of Soybeans, 1985 - 1989, The Protection of Small Fruits and Berries, The Protection of Grapes and Cherries, The Protection of Ornamental Plants, The Protection of Farm Animals, and The Protection of Wildlife and Vertebrate Pest Control. The 1990 volumes include The Protection of Tropical and Subtropical Fruits, The Protection of Small Grains (other than Wheat, Rice or Sorghums), The Protection of Cucurbits, The Protection of Minor Vegetable Crops, The Protection of Beans, Peas, and Lentils, and The Protection of Forestry.

Entries in the bibliography are subdivided into a series of section headings used in the contents of the Bibliography of Agriculture. Each item appears under every section heading assigned to the cited document. A personal author index is also included in the publication and a site index to plants follows the personal author index.

The U.S. Environmental Protection Agency contact for this project is Richard B. Peacock, Office of Pesticides and Toxic Substances.

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Errata
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AKFRAC. Johnson, D.H. Talbert, R.E. Fayetteville, Ark. : The Station. Arkansas farm research - Arkansas Agricultural Experiment Station. Jan/Feb 1988. v. 37 (1). p. 15. (NAL Call No.: DNAL 100 AR42F).

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Evapotranspiration studies on taro in the Everglades (*Colocasia esculenta*, Florida).
Shih, S.F. Rahi, G.S.; Snyder, G.H. St. Joseph, Mich. : The Society. Paper - American Society of Agricultural Engineers (Microfiche collection). 1982. Paper presented at the 1982 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. 1982. (fiche no. 82-2595). 1 microfiche : ill. Includes references. (NAL Call No.: FICHE S-72).

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0057

Extracellular enzymes produced by the cultivated mushroom *Lentinus edodes* during degradation of a lignocellulosic medium. APMBA. Leatham, G.F. Washington, D.C. : American Society for Microbiology. Applied and environmental microbiology. Oct 1985. v. 50 (4). p. 859-867. Includes 48 references. (NAL Call No.: DNAL 448.3 AP5).

0058

Garlic weed competition.

CAGRA. Agamalian, H.S. Kurtz, E.A. Berkeley, Calif. : The Station. California agriculture - California Agricultural Experiment Station. Jan/Feb 1989. v. 43 (1). p. 11-12. illl. (NAL Call No.: DNAL 100 C12CAG).

0059

The genus Allium. 1.

CRFND. Fenwick, G.R. Hanley, A.B. Boca Raton, Fla. : CRC Press. Abstract: The first part of a comprehensive 2-part review on members of the Allium family (e.g., onion, garlic, chives, leek, rakkyo) examines: their production; botanical characteristics; reduction, due to fungal attack and pest damage; agricultural development; and food processing quality. The medicinal properties of garlic and onion oils are assessed, including the anti-fungal, anti-microbial, and insecticidal properties of these oils. The agricultural development of onion is stressed covering cultivation, harvesting, curing, storage conditions with respect to cultivar type, and irradiation to prevent sprouting. A list of 1060 literature citations is appended. (WZ). CRC critical reviews in food science and nutrition. 1985. v. 22 (3). p. 199-271. charts. Includes 1060 references. (NAL Call No.: DNAL TP368.C7).

0060

Greens through winter.

Proulx, E.A. Emmaus, Pa. : Rodale Press, Inc. Organic gardening. Sept 1988. v. 35 (9). p. 52-54. illl. (NAL Call No.: DNAL S605.5.074).

0061

A grower's guide for commercial mushroom compost preparation. Schisler, L.C. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 83-85. (NAL Call No.: DNAL SB353.P42).

0062

Growing cauliflower and broccoli.

XDAFA. Washington, D.C. : The Department. Farmers' bulletin - United States Department of Agriculture. 1984. (2239,rev.). 14 p. illl. (NAL Call No.: DNAL 1 AG84F).

0063

Growing collards in Alabama.

Williams, J.L. Gazaway, W.S.; Strother, G.; Patterson, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. In subseries: Horticulture. Apr 1987. (51). 2 p. (NAL Call No.: DNAL S544.3.A2C47).

0064

Growing rhubarb.

Colt, W.M. Beaver, G.; Simpson, W.R.; Finnigan, B. Moscow : The Service. Current information series - Cooperative Extension Service, University of Idaho. Oct 1983. (719). 3 p. illl. (NAL Call No.: DNAL 275.29 ID13IDC).

0065

Growth responses of eggplant and soybean seedlings to mechanical stress in greenhouse and outdoor environments.

JOSHB. Latimer, J.G. Pappas, T.; Mitchell, C.A. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1986. v. 111 (5). p. 694-698. Includes references. (NAL Call No.: DNAL 81 S012).

0066

Impact of insecticide schedule, N and K rates and transplant container size on cauliflower yield.

AAREEZ. Csizinszky, A.A. Schuster, D.J. New York : Springer. Applied agricultural research. 1988. v. 3 (1). p. 12-16. Includes references. (NAL Call No.: DNAL S539.5.A77).

0067

Influence of different types of mulches on eggplant production.

HJHSA. Carter, J. Johnson, C. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1988. v. 23 (1). p. 143-145. Includes references. (NAL Call No.: DNAL SB1.H6).

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0068

Kale and collard: Seed production in the Pacific Northwest.
Jarmin, M.L. Corvallis, Or. : The Service. PNW - Pacific Northwest Extension Publication, Washington, Oregon, and Idaho State Universities, Cooperative Extension Service. June 1985. (269). 3 p. (NAL Call No.: DNAL 275.29 W27PN).

0069

Magnetic conditioning of seeds of leek (*Allium porrum* L.) to increase seed lot germination percentage.
JSTED. Krishnan, P. Berlage, A.G. East Lansing, Mich. : Association of Official Seed Analysts. Journal of seed technology. 1986. v. 10 (1). p. 74-80. Includes 15 references. (NAL Call No.: DNAL SB113.2.J6).

0070

Market diseases of beets, chicory, endive, escarole, globe artichokes, lettuce, rhubarb, spinach, and sweetpotatoes /H.E. Moline and W.J. Lipton.

Moline, Harold E. Lipton, Werner J.,_1929-. Washington, D.C.? : U.S. Dept. of Agriculture, Agricultural Research Service : Supt. of Docs., U.S. G.P.O., distributor, 1987. v. 86 p. : col. illl. ; 22 cm. Includes bibliographies. (NAL Call No.: DNAL 1 Ag84Ah no. 155 1987).

0071

Mushroom-growing medium (A liquid mixture containing sources of soluble carbon and nitrogen is fermented and mixed with cellulosic material; the so-treated cellulosic material is held at a temperature and for a time sufficient to allow substantial reduction of organisms damaging to mushroom culture; the cellulosic material then is cooled to a temperature suitable for spawning; citation only).

Kurtzman, R.H. Jr. Washington, D.C. : The Office. United States patent - United States Patent Office. June 8, 1982. Copies of USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231. June 8, 1982. (4,333,757). 5 p. Includes references. (NAL Call No.: NO CALL NO. (PAT)).

0072

The Mushroom industry (Jan. 72-May 81) : citations from the Food Science and Technology Abstracts Data Base. -. Storrs, Conn. New England Research Application Center Springfield, Va. National Technical Information Service 1981. NT4269 ~PB81-866733 ~Includes index. 34 leaves in various foliations ; 28 cm. (NAL Call No.: Z5074.M9M9).

0073

No artichokes!!! Would life be bearable without specialty crops? (Need for conservation of farm lands and pollution control, includes history of commercial horticulture in California).
Briggs, D.H. Wyman, H.C. Washington, D.C. : U.S. Department of Agriculture. The Yearbook of agriculture. 1983. 1983. p. 476-483. illl. (NAL Call No.: 1 AG84Y).

0074

Outwitting biological heat patterns.
AGENA. Schroeder, M.E. St. Joseph, Mich. : American Society of Agricultural Engineers. Agricultural engineering. May/June 1986. v. 67 (3). p. 18-19. (NAL Call No.: DNAL 58.8 AG83).

0075

Parsley: a production guide.
Simon, J.E. Rabin, J.; Clavio, L. West Lafayette, Ind. : The Service. HO - Purdue University, Cooperative Extension Service. 1987? . (202). 4 p. (NAL Call No.: DNAL SB21.I6P8).

0076

Pasteurization during the mushroom-growing cycle.
Wuest, P.J. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 89-93. (NAL Call No.: DNAL SB353.P42).

0077

Penn State handbook for commercial mushroom growers a compendium of scientific and technical information useful to mushroom farmers / authors: Herbert A. Wetzel ... et al. .

Wetzel, Herbert A. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Spine title: Mushroom growers' handbook.~ In notebook. xi, 129 p., 30 p. of plates : illl. (some col.) ; 30 cm. Bibliography: p. 121-127. (NAL Call No.: DNAL SB353.P42).

0078

Pest control in commercial cole crop production (Cauliflower, broccoli, and brussels sprouts). Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison, Wis., The Programs. Publication - Cooperative Extension Programs, University of Wisconsin Extension. Apr 1981. Apr 1981.

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(A2357). 4 p. (NAL Call No.: S544.3.W6W53).

0079

Plant analysis for nitrogen fertilization of asparagus.

JOSHB. Gardner, B.R. Roth, R.L. Alexandria, Va. : The Society. This study was initiated to establish critical N plant tissue levels for asparagus (*Asparagus officinalis L.*) during the fern growing season. Tissue samples for chemical analysis were taken from asparagus plants over three growing seasons. The experiment consisted of nine treatments with five levels of water ranging from 750 to 4200 mm.²ha⁻¹ and five levels of N fertilizer ranging from 100 to 655 kg N/ha. Only the cladophylls were sampled during the fern growing season beginning in mid-April and monthly through mid-September. Total N concentration at various sampling dates and spear yield were highly correlated. Total N concentration indicated the N status of the asparagus plant. Minimum or critical levels of total N were established for the fern growing season in the desert regions of Arizona. Journal of the American Society for Horticultural Science. Sept 1989. v. 114 (5). p. 741-745. Includes references. (NAL Call No.: DNAL 81 S012).

and tubers). Graphical and tabular data are presented throughout the text, and literature references are appended to each chapter. xii, 597 p. : ill. ; 24 cm. Includes bibliographies and index. (NAL Call No.: DNAL SB324.6.P67).

0082

Potassium nutrition of cassava.

Howeler, R.H. Madison, Wis. : American Society of Agronomy, 1985. Potassium in agriculture / Robert D. Munson, editor. Paper presented at an international symposium, 7-10 July 1985, Atlanta, Georgia. Literature review. p. 819-841. Includes references. (NAL Call No.: DNAL S587.5.P6P68).

0083

Processing and chemical investigations of taro /by John H. Payne, Gaston J. Ley, George Akau. Payne, John Howard, 1906-. Ley, Gaston J.; Akau, George Herbert. Honolulu : Hawaii Agricultural Experiment Station, University of Hawaii, 1941. 41 p. : ill. ; 23 cm. Bibliography: p. 34-36. (NAL Call No.: DNAL 100 H313 (1) no.86).

0080

Poisonous and edible mushrooms.

KAeba. Garman, H. Lexington : The Station. Bulletin - Kentucky, Agricultural Experiment Station. Documents available from: Agriculture Library, Agricultural Science Center - North, University of Kentucky, Lexington, Ky. 40546-0091. Nov 1901. (96,pt.3). p. 215-222. plates. (NAL Call No.: DNAL 100 K41 (2)).

0084

Production potential and survival of fall- and spring-seeded asparagus (Cold temperature injury, crown, direct seeding).

Dufault, R.J. JOSHB. Greig, J.K. Alexandria : The Society. Journal of the American Society for Horticultural Science. Sept 1983. v. 108 (5). p. 763-767. Includes references. (NAL Call No.: 81 S012).

0081

Postharvest physiology of vegetables /edited by J. Weichmann.

Weichmann, J. New York : M. Dekker, c1987. Abstract: An authoritative reference text for agricultural chemists and researchers, food scientists and technologists, and nutritionists provides detailed information on the postharvest physiology of root, leafy, flower, and immature and mature fruit vegetables. The 31 text chapters, prepared by international experts in their respective fields, are grouped among 6 sections, viz.: the classification and physiological and biochemical changes of vegetables during the harvest period; basic postharvest physiological characteristics (e.g.: gas exchange, hormonal alterations, cell membrane changes); the influence of postharvest factors (temperature, low O₂, high CO₂, CO, ethylene and other volatiles, storage air circulation) on postharvest reactions and keeping quality; postharvest diseases and injuries; sensory and nutritional quality changes; and physiological postharvest changes in specific vegetables (brassica, asparagus, fruit vegetables, root vegetables, and bulbs

0085

Productivity of *Agaricus brunnescens* stock cultures following 5-, 7-, and 10-year storage periods in liquid nitrogen (Mushrooms).

Jodon, M.H. CRYBA. Royse, D.J.; Jong, S.C. New York : Academic Press. Cryobiology. Dec 1982. v. 19 (6). p. 602-606. 18 ref. (NAL Call No.: QH324.C7).

0086

Productivity of eight leafy vegetable crops grown under shade in Hawaii.

JOSHB. Wolff, X.Y. Coltman, R.R. Alexandria, Va. : The Society. 'Green Mignonette', 'Salinas', 'Parris Island Cos', and 'Amaral 400' lettuce (*Lactuca sativa L.*); 'WR-55 Days' Chinese cabbage (*Brassica rapa L. Pekinensis Group*); 'Waianae Strain' green mustard cabbage *Brassica juncea* (L.) Czerniak; 'Tastie Hybrid' head cabbage (*Brassica oleracea L. Capitata Group*); and an unnamed local selection of green bunching onions (*Allium fistulosum L.*) were field-grown during Fall 1987 and Spring

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1988 at Waimanalo, Oahu, Hawaii, in full-sun and with four artificially produced levels of shade (30%, 47%, 63%, and 73%). Yields of cos lettuce, green mustard cabbage, and green bunching onions were irresponsible to shade or negatively affected by shade in both seasons. Yield responses of the other crops to shade varied seasonally. Optimum shading of 30% to 47% increased 'Green Mignonette', 'Salinas', and 'Amaral 400' lettuce yields by 36% and head cabbage and Chinese cabbage yields by 23% and 21%, respectively, compared to full-sun plots in one or both seasons. Leaf areas similar to unshaded controls were maintained as shade intensity increased, while leaf dry weight decreased in all crops except 'Salinas' and 'Parris Island Cos' lettuce. Maximum rates of net photosynthesis (P_n) were attained at 1500 micromol/(s)(m²) which was about two-thirds of full sunlight. Journal of the American Society for Horticultural Science. Jan 1990. v. 115 (1). p. 182-188. Includes references. (NAL Call No.: DNAL 81 S012).

0087

Productivity under shade in Hawaii of five crops grown as vegetables in the tropics.
JOSHE. Wolff, X.Y. Coltman, R.R. Alexandria, Va. : The Society. 'Waimanalo Long' eggplant (*Solanum melongena* L.), 'Kahala' soybean *Glycine max* (L.) Merrill, 'Jumbo Virginia' peanut (*Arachis hypogaea* L.) 'Waimanalo Red' sweet potato *Ipomea batatas* (L.) Lam., and 'Green Mignonette' semihead lettuce (*Lactuca sativa* L.) were field-grown in two seasons at Waimanalo, Oahu, Hawaii, in the open sun and with four artificially produced levels of shade (30%, 47%, 63%, and 73%). Yields and vegetative growth of eggplant, soybean, peanut, and sweet potato decreased linearly with increasing shade levels. Compared to unshaded controls, yields of semihead lettuce increased significantly under 30% shade in Fall 1986. During Spring 1987, lettuce yields were reduced only slightly from unshaded levels by increasing shade up to 47%. Leaf areas of index leaves of eggplant, soybean, and lettuce were similar to unshaded controls as shade intensity increased, while leaf dry weight decreased under shade. By comparison, both leaf area and leaf dry weight of peanut index leaves decreased as shade increased. Leaf area and leaf dry weight of sweet potato did not respond to shading. The results indicate that, of the five crops studied, only lettuce can be grown successfully under lightly shaded conditions and still receive enough radiant energy for maximum photosynthesis and yields. Journal of the American Society for Horticultural Science. Jan 1990. v. 115 (1). p. 175-181. Includes references. (NAL Call No.: DNAL 81 S012).

0088

Programming digital microprocessor control system for thermophilic composting in mushroom culture.

Schroeder, M.E. St. Joseph, Mich. : American Society of Agricultural Engineers, c1984. Agricultural electronics--1983 and beyond : proceedings of the National Conference on Agricultural Electronics Applications, December 11-13, 1983, Hyatt Regency Illinois Center, Chicago, Illinois. p. 396-401. ill. Includes 5 references. (NAL Call No.: DNAL TK7882.A37N38 1983).

0089

Relative concentrations of cadmium and zinc in tissue of selected food plants grown on sludge-treated soils.

JEVQAA. Kim, S.J. Chang, A.C.; Page, A.L.; Warneke, J.E. Madison, Wis. : American Society of Agronomy. Twelve selected food plants were grown in greenhouse pots to determine the relative concentration of Cd and Zn in the plants grown in sludge-treated soils. The relative concentration of the metal was calculated as the quotient of the metal content in a plant and that in Swiss chard (*Beta vulgaris* subsp. *cicla* (L.) Koch) grown under the same soil conditions. The relative concentrations of Cd and Zn of food plants grown in several sludge-treated soils were significantly different ($p < 0.01$), but the relative concentrations of these plants in one soil has the statistical characteristics (e.g., range, mean, median, coefficient of variation, etc.) as those in another soil. Journal of environmental quality. Oct/Dec 1988. v. 17 (4). p. 568-573. Includes references. (NAL Call No.: DNAL QH540.J6).

0090

Residual effects of forcing and hardening of tomato, cabbage, and cauliflower plants by M.F. Babb. -.

Babb, M. F. (Myron Francis). Washington, D.C. U.S. Dept. of Agriculture 1940. 35 p. : ill. --. Bibliography: p. 33-34. (NAL Call No.: Fiche S-69 no.760).

0091

Rhubarb.

Marr, Charles. Greig, J. K. & Horticulture facts. 1980. This publication discusses fertilization, varieties, planting, care, and pest control of rhubarb. Document available from: Kansas State University, Distribution Center, Umberger Hall, Manhattan, Kansas 66506. 1 sheet : ill. (NAL Call No.: Not available at NAL.). (NAL Call No.: MF-318).

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0092

Salinity effects on asparagus yield and vegetative growth.

JOSHB. Francois, L.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1987. v. 112 (3). p. 432-436. Includes references. (NAL Call No.: DNAL 81 S012).

0093

Seasonal variations and mushroom growing.

Wuest, P.J. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 79-81. (NAL Call No.: DNAL SB353.P42).

0094

Shiitake: cultivated mushroom.

Rafats, J. Beltsville, Md. : The Library. Quick bibliography series - National Agricultural Library (U.S.). Bibliography. Jan 1986. (86-28). 7 p. (NAL Call No.: DNAL aZ5071.N3).

0095

Some thoughts on CO₂ control in mushroom culture.

Schisler, L.C. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 103. (NAL Call No.: DNAL SB353.P42).

0096

Spent mushroom compost as a soil amendment for vegetables (Soil physical and chemical characteristics, Tennessee).

Wang, S.H.L. Lohr, V.I.; Coffey, D.L. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 698-702. Includes 24 references. (NAL Call No.: 81 S012).

0097

Spent mushroom compost in soilless media and its effects on the yield and quality of transplants (Lettuce, tomatoes, cucumbers, Tagetes patula).

Lohr, V.I. O'Brien, R.G.; Coffey, D.L. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 693-697. Includes 23

references. (NAL Call No.: 81 S012).

0098

Table beet and Swiss chard: Seed production in the Pacific Northwest.

Jarmin, M.L. Corvallis, Or. : The Service. PNW - Pacific Northwest Extension Publication, Washington, Oregon, and Idaho State Universities, Cooperative Extension Service. June 1985. (271). 4 p. (NAL Call No.: DNAL 275.29 W27PN).

0099

Vegetables varieties of sweet potatoes, onions, melons, celery, beans, cabbage, cauliflower, and tomatoes ; Insecticides / R.H. Price .
Price, R. H. 1864-. College Station, Tex. : Texas Agricultural Experiment Station, 1895. Cover title. p. 607-651 : ill. ; 23 cm. (NAL Call No.: DNAL 100 T31S (1) no.36).

0100

Weed control in seeded cabbage, mustard greens, spinach and in transplanted broccoli grown under conservation tillage practices.
JRGVA. Menges, R.M. Heilman, M.D. Weslaco : The Society. Journal of the Rio Grande Valley Horticultural Society. 1986. v. 39. p. 83-89. Includes references. (NAL Call No.: DNAL 81 L95).

0101

Why mushroom production declines with each successive break, and, the production of a second crop of Agaricus mushrooms on "spent" compost.

AAREEZ. Schisler, L.C. New York, N.Y. : Springer. It is believed toxic substances may accumulate in mushroom compost as harvesting proceeds, and these substances are responsible for decreased yield as the mushroom crop ages. Delayed release lease nutrient and an adsorbent material, a hypnum peat were added to compost at spawning. Compost receiving both hypnum peat and delayed release nutrients had significantly greater yield in later breaks than compost supplemented with delayed release nutrients alone. Respawning spent compost (completely cropped mushroom compost) with the addition of delayed release nutrients and a hypnum peat resulted in a generous second crop of mushrooms on the same compost. This approach to regulating metabolism of mushroom mycelium by adding adsorbents to remove accumulated toxic substances and replenishing the compost nutrient base at spawning or to spent compost, opens a whole new field for study of yield regulation. This technology may influence cropping techniques at mushroom farms worldwide by reducing the need for bulk compost ingredients by as much as 50%. Applied agricultural research. Winter 1990. v. 5 (1).

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p. 44-47. ill. Includes references. (NAL Call No.: DNAL S539.5.A77).

0102

1979 pesticide use on Florida vegetables, a preliminary report.

Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: According to the 1979 Vegetable Pesticide Survey, nearly 4.6 million pounds of pesticides were used to control weeds, insects, diseases, and nematodes on six vegetable crops in Florida. The six vegetable crops included cabbage, celery, lettuce, sweet corn, tomatoes, and watermelon. About 4.6 million acre-treatments were made ranging from 2.2 million for tomatoes to 148,800 for cabbage. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. July 1981. Available from NTIS. July 1981. (AGESS810708). 23 p. 6 ref. (NAL Call No.: 916762(AGE)).

PLANT PRODUCTION - FIELD CROPS

0103

Effect of Phytophthora megasperma var. sojae on yield of Asparagus officinalis.

PLDRA. Falloon, P.G. Falloon, L.M.; Benson, B.L.; Grogan, R.G. St. Paul, Minn. : American Phytopathological Society. Plant disease. Jan 1986. v. 70 (1). p. 15-19. Includes 15 references. (NAL Call No.: DNAL 1.9 P69P).

0109

Volunteer Jerusalem artichoke (*Helianthus tuberosus*) interference and control in barley (*Hordeum vulgare*).

WETEE9. Wall, D.A. Friesen, G.H. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. Jan/Mar 1989. v. 3 (1). p. 170-172. Includes references. (NAL Call No.: DNAL SB610.W39).

0104

The effect of seeding depth, soil moisture regime, and crust strength on emergence of rape cultivars (*Brassica napus*, *Brassica campestris*, comparisons, in northern Saskatchewan soils). Nuttall, W.F. AGJOA. Madison : American Society of Agronomy. Agronomy journal. Nov/Dec 1982. v. 74 (6). p. 1018-1022. ill. 19 ref. (NAL Call No.: 4 AM34P).

0110

Water table effects on nutrient contents of celery, lettuce and sweet corn.

TAAEA. Shih, S.F. Rosen, M. St. Joseph, Mich. : The Society. Transactions of the ASAE - American Society of Agricultural Engineers. Nov/Dec 1985. v. 28 (6). p. 1867-1870. Includes references. (NAL Call No.: DNAL 290.9 AM32T).

0105

Further experience in asparagus rust control /by Ralph E. Smith.

Smith, Ralph E. 1874-1953. Berkeley, Cal. : Agricultural Experiment Station, 1906. Cover title. 21 p. : ill. ; 23 cm. (NAL Call No.: DNAL 100 C12S no.172).

0111

Spring rape (Cultivation, insect pest control, weeding, fertilization, harvesting). FRENCH.

Planson, J. Lille, (s.n.). Cultivar. July/Aug 1979. July/Aug 1979. (119). p. 66-67. ill., map. (NAL Call No.: SB183.C8).

0106

Influence of Jerusalem artichoke (*Helianthus tuberosus*) density and duration of interference on soybean (*Glycine max*) growth and yield.

WEESA6. Wyse, D.L. Young, F.L.; Jones, R.U. Champaign, Ill. : Weed Science Society of America. Weed science. Mar 1986. v. 34 (2). p. 243-247. Includes 14 references. (NAL Call No.: DNAL 79.8 W41).

0107

Planting date and cultivar effect on winter rape production (*Brassica napus*, cold tolerance, cultivar comparisons, Idaho).

Auld, D.L. Bettis, B.L.; Dial, M.J. Madison : American Society of Agronomy. Agronomy journal. Mar/Apr 1984. v. 76 (2). p. 197-200. Includes references. (NAL Call No.: 4 AM34P).

0108

Potassium nutrition of rape, flax, sunflower, and safflower.

Bailey, L.D. Soper, R.J. Madison, Wis. : American Society of Agronomy, 1985. Potassium in agriculture / Robert D. Munson, editor. Paper presented at an international symposium, 7-10 July 1985, Atlanta, Georgia. p. 765-798. Includes references. (NAL Call No.: DNAL S587.5.P6P68).

PLANT PRODUCTION - MISC. CROPS

0112

Parsley production for fresh market.
Rabin, J. West Lafayette, Indiana : The
Station. Station bulletin - Purdue University,
Agricultural Experiment Station. Paper
presented at the Second National Herb Growing
and Marketing Conference, July 19-22, 1987,
Indianapolis, Indiana. 1987. (530). p. 43-47.
Includes references. (NAL Call No.: DNAL
HD1775.I6I5).

0113

Research on bamboo.
WOSTBE. Liese, W. Secaucus, N.J. :
Springer-Verlag New York Inc. Wood science and
technology. Literature review. 1987. v. 21 (3).
p. 189-209. illl. Includes references. (NAL Call
No.: DNAL SD433.A1W6).

0114

Successful parsley production programs in New Jersey.
Rabin, J. Berkowitz, G.A. Amherst, Mass. :
Massachusetts Cooperative Extension Service.
The herb, spice and medicinal plant digest.
Spring 1986. v. 4 (1). p. 1-2, 5-6. (NAL Call
No.: DNAL SB351.H5H365).

PLANT BREEDING

0115

Asparagus plant named Jersey Knight.

Ellison, J.H. Kinelski, J.J. Washington, D.C. : The Office. A male asparagus plant having tolerance to rust (*Puccinia asparagi*), root rot (*Fusarium oxysporum*), crown rot (*Fusarium moniliforme*), with high quality spears produced and high yield with spear tips remaining tight even in hot weather and when the spear is long. Plant patent - United States Patent and Trademark Office. Feb 21, 1989. (6624). 2 p. plates. (NAL Call No.: DNAL 156.65 P69).

0116

Asparagus plant named Linda.

Ellison, J.H. Kinelski, J.J. Washington, D.C. : The Office. A female asparagus plant having rust and *Fusarium* resistance, vigorous in growth, high quality spear production, all characteristics being transmitted to progeny. Plant patent - United States Patent and Trademark Office. Feb 21, 1989. (6622). 1 p. plates. (NAL Call No.: DNAL 156.65 P69).

0117

Broccoli and cauliflower production in Florida.

Olson, S.M. Sherman, M. Gainesville, Fla. : The Service. Circular - Florida Cooperative Extension Service. 1985. (555). 6 p. ill. (NAL Call No.: DNAL 275.29 F66C).

0118

Cyanogenesis in sweet and bitter cultivars of cassava (Cyanide, toxicity).

Pereira, J.F. Seigler, D.S.; Splittstoesser, W.E. Alexandria, Va., American Society for Horticultural Science. HortScience. Dec 1981. v. 16 (6, sect. 1). p. 776-777. ill. Includes 13 ref. (NAL Call No.: SB1.H6).

0119

Genetic control of seed chemistry and morphology in wild parsnip (*Pastinaca sativa*).

JOHEA. Zangerl, A.R. Berenbaum, M.R.; Levine, E. Washington, D.C. : American Genetic Association. The Journal of heredity. Sept/Oct 1989. v. 80 (5). p. 404-407. Includes references. (NAL Call No.: DNAL 442.8 AM3).

0120

Laboratory evaluation of pink root and fusarium basal rot resistance in garlic.

PLDRA. Rengwalska, M.M. Simon, P.W. St. Paul, Minn. : American Phytopathological Society. Plant disease. July 1986. v. 70 (7). p. 670-672. Includes 27 references. (NAL Call No.: DNAL 1.9 P69P).

0121

Partitioning of dry matter in open-pollinated and F1 hybrid cultivars of asparagus.

Benson, B.L. Takatori, F.H. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. July 1980. v. 105 (4). p. 567-570. ill. 9 ref. (NAL Call No.: 81 S012).

0122

Plant regeneration from callus-derived protoplasts of asparagus.

JOSHB. Elmer, W.H. Ball, T.; Volokita, M.; Stephens, C.T.; Sink, K.C. Alexandria, Va. : The Society. Donor callus cells for protoplasts were initiated from mature plants of four selected crowns of asparagus (*Asparagus officinalis* L.) by placing spear slices on solidified Murashige and Skoog salts and vitamins medium (MS) with 3% sucrose + (in mg.liter-1): 1.0 NAA + 1.2 2,4-D + 0.9 BA or 1.0 kinetin + 2.5 2,4-D. Callus derived from these explants was further subcultured on the same medium. Optimum protoplast yields were enzymatically obtained from such calluses 10 to 20 days after subculture. Of the isolated protoplasts 65% to 75% were viable, and when plated in modified Kao and Michayluk medium at 5 X 10(4) or 10(5)/ml densities, had 6.5% and 7.3% plating efficiencies, respectively. Protoplast isolations had 0.81% to 1.4% cells present that were not observed subsequently to undergo division. Only the cells or protoplasts of Jersey Giant crown No. 8' divided during 8 weeks to form microcalluses. After transfer and culture for an additional 4 to 5 weeks on solidified MS + (in mg.liter-1): 0.1 NAA + 1.0 kinetin, shoots regenerated at 28% efficiency. Shoots were rooted at 50% efficiency on solidified MS + (in mg.liter-1): 0.3 NAA + 0.7 kinetin + 2.1 ancytidol + 4% sucrose. The rooted plants were readily transferred to the greenhouse. Chemical names used:
1-naphthaleneacetic acid (NAA),
2,4-dichlorophenoxyacetic acid 2,4-D),
N-(phenylmethyl)- 1H-purin-6-amine (BA),
N-(2-furanyl methyl)- 1H-purin-6-amine (kinetin),
alpha-cyclopropyl-alpha-(4-methoxy-phenyl)-5-pyrimidine methanol (ancytidol). Journal of the American Society for Horticultural Science. Nov 1989. v. 114 (6). p. 1019-1024. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0123

Planting date and cultivar effect on winter rape production (*Brassica napus*, cold tolerance, cultivar comparisons, Idaho).

Auld, D.L. Bettis, B.L.; Dial, M.J. Madison : American Society of Agronomy. Agronomy journal. Mar/Apr 1984. v. 76 (2). p. 197-200. Includes references. (NAL Call No.: 4 AM34P).

(PLANT BREEDING)

0124

The production and utilization of microspore-derived haploids in *Brassica* crops (Oilseed rape, anther culture).

Keller, W.A. Armstrong, K.C.; Roche, A.I. de la. New York : Plenum Press, c1983. Plant cell culture in crop improvement / edited by S.K. Sen and Kenneth L. Giles. p. 169-183. 27 ref. (NAL Call No.: SB123.6.P5).

0125

Stability of chloroplastic triazine resistance in rutabaga backcross generations.

PLPPA. Ali, A. Buerst, E.P.; Arntzen, C.J.; Machado, V.S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1986. v. 80 (2). p. 511-514. Includes 26 references. (NAL Call No.: DNAL 450 P692).

0126

USDA (United States Department of Agriculture) issues seven plant variety protection certificates (for new varieties of corn, lettuce, soybean and broccoli raab).

Washington : The Office. Major news releases and speeches - United States Department of Agriculture, Office of Governmental and Public Affairs. July 29/Aug 5, 1983. July 29/Aug 5, 1983. p. 28. (NAL Call No.: aS21.A8U51).

PLANT ECOLOGY

0127

Autointoxication of Asparagus officinalis L.
Young, C.C. New York, N.Y. : John Wiley & Sons, c1986. The Science of allelopathy / edited by, Alan R. Putnam and Chung-Shih Tang. Literature review. p. 101-110. Includes references. (NAL Call No.: DNAL QK898.A43S34).

0128

Effect of environment and a growth substance on development of wild garlic (Allium vineale L.)
/ by Donald Lee Barnes. -.
Barnes, Donald Lee, 1942-. 1970. Thesis (Ph.D.)--University of Missouri, 1970. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. 99 leaves ; 21 cm. Bibliography: leaves 96-99. (NAL Call No.: DISS 71-3,306).

0129

'Escaped' artichokes are troublesome pests.
CAGRA. Thomsen, C.D. Barbe, G.D.; Williams, W.A.; George, M.R. Berkeley, Calif. : The Station. California agriculture - California Agricultural Experiment Station. Mar/Apr 1986. v. 40 (3/4). p. 7-9. ill. (NAL Call No.: DNAL 100 C12CAG).

0130

In vitro acclimatization of aseptically cultured plantlets to humidity (Chrysanthemum, cauliflower, Brassica oleracea, Botrytis group).
Wardle, K.JOSH. Dobbs, E.B.; Short, K.C. Alexandria : The Society. Journal of the American Society for Horticultural Science. May 1983. v. 108 (3). p. 386-389. ill. Includes references. (NAL Call No.: 81 S012).

0131

Water use efficiency of cassava. II. Differing sensitivity of stomata to air humidity in cassava and other warm-climate species (Manihot esculenta).
El-Sharkawy, M.A. Cock, J.H.; Held K, A.A. Madison, Wis. : Crop Science Society of America. Crop science. May/June 1984. v. 24 (3). p. 503-507. ill. Includes references. (NAL Call No.: 64.8 C883).

PLANT STRUCTURE

0132

Flexural rigidity of chive and its response to water potential.

AJBOA. Niklas, K.J. O'Rourke, T.D. Baltimore, Md. : Botanical Society of America. American journal of botany. July 1987. v. 74 (7). p. 1033-1044. Includes references. (NAL Call No.: DNAL 450 AM36).

0133

Light intensity and temperature effects on epicuticular wax morphology and internal cuticle ultrastructure of carnation and brussels sprouts leaf cuticles.

Reed, D.W. Tukey, H.B. Jr. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. May 1982. v. 107 (3). p. 417-420. ill. 21 ref. (NAL Call No.: 81 S012).

PLANT NUTRITION

0134

Cadmium-enriched sewage sludge application to acid and calcareous soils: effect on soil and nutrition of lettuce, corn, tomato, and swiss chard (California).

Mahler, R.J. Bingham, F.T.; Page, A.L.; Ryan, J.A. Madison : American Society of Agronomy. Journal of environmental quality. Oct/Dec 1982. v. 11 (4). p. 694-700. 29 ref. (NAL Call No.: QH540.J6).

0135

Cassava-cowpea and cassava-peanut intercropping. III. Nutrient concentrations and removal.

AGJOAT. Mason, S.C. Leihner, D.E.; Vorst, J.J. Madison, Wis. : American Society of Agronomy. Agronomy journal. May/June 1986. v. 78 (3). p. 441-444. Includes references. (NAL Call No.: DNAL 4 AM34P).

0136

Effect of excess boron on broccoli, cauliflower, and radish.

JOSH. Francois, L.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 494-498. Includes references. (NAL Call No.: DNAL 81 S012).

0137

The effect of fertilization levels on asparagus production (in the Cumberland Plateau, yields).

Mullins, C.A. TN. Swingle, H.D. Knoxville, The Station. Tennessee farm and home science; progress report. Tennessee. Agricultural Experiment Station. Oct/Dec 1979. Oct/Dec 1979. (112). p. 33-34. ill. (NAL Call No.: 100 T25F).

0138

Effect of spawn run time and substrate nutrition on yield and size of the Shiitake mushroom.

MYCOAE. Royse, D.J. Bronx, N.Y. : The New York Botanical Garden. Mycologia. Sept/Oct 1985. v. 77 (5). p. 756-762. Includes references. (NAL Call No.: DNAL 450 M99).

0139

Effects of controlled-release phosphorus and inoculum density on the growth and mycorrhizal infection of pepper and leek transplants.

HUHSA. Waterer, D.R. Coltman, R.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. June 1988. v. 23 (3). p. 620-622. Includes references. (NAL Call No.: DNAL SB1.H6).

0140

Effects of magnesium on tobacco mosaic virus-infected eggplants.

Seaker, E.M. Bergman, E.L.; Romaine, C.P. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. Jan 1982. v. 107 (1). p. 162-166. Includes 22 ref. (NAL Call No.: 81 S012).

0141

Effects of soil type, liming, and sludge application on zinc and cadmium availability to Swiss chard.

SOSCAK. Kuo, S. Jellum, E.J.; Baker, A.S. Baltimore, Md. : Williams & Wilkins. Soil science. Feb 1985. v. 139 (2). p. 122-130. ill. Includes references. (NAL Call No.: DNAL 56.8 S03).

0142

Nitrogen-15 uptake by eggplant under sodium chloride stress.

SSSJD4. Pessarakli, M. Tucker, T.C. Madison, Wis. : The Society. Plant growth and nutrient uptake are adversely affected under salt stress conditions. This study was conducted to examine the effects of NaCl stress on growth of eggplant (*Solanum melongena* L., cv. Syria), and ¹⁵N uptake and distribution in plant shoots and roots. Absorption pattern of ¹⁵N by eggplant from normal (-0.03 MPa osmotic potential) and NaCl salinized (-0.3 and -0.6 MPa osmotic potentials) nutrient solutions was investigated in a growth chamber. The 21-d-old seedlings were grown for 7 d in complete Hoagland solution before and 7 d after the completion of salt treatments. This was followed by 3-d growth in minus N solution with respective salinity levels, and a 90-d ¹⁵N uptake period after $^{15}\text{NH}_4\text{-}^{15}\text{NO}_3$ addition to nutrient solutions. Nutrient solutions were sampled at 5-d intervals for ¹⁵N disappearance from the pots (plant absorbed). Plant tissues were analyzed for distribution of ¹⁵N in shoots and roots. Lowering the osmotic potential of culture solution decreased total N and ¹⁵N uptake by plants at all salinity levels. Increasing salinity decreased dry matter production and water uptake to a greater extent than ¹⁵N absorption. Nitrogen-15 concentration was substantially higher in shoots and roots of salinized plants as compared with the controls at the 90-d harvest. Only at the 30-d harvest was ¹⁵N concentration in shoots significantly higher than in roots at each salinity level. Any level of NaCl in the root medium appears to be detrimental to eggplant growth in terms of dry matter production as well as nitrogen (N and ¹⁵N) and water uptake. Soil Science Society of America journal. Nov/Dec 1988. v. 52 (6). p. 1673-1676. Includes references. (NAL Call No.: DNAL 56.9 S03).

(PLANT NUTRITION)

0143

P nutrition of cassava, including mycorrhizal effects on P, K, S, Zn and Ca (*Manihot esculenta*, phosphorus, potassium, sulfur, calcium) uptake.

Vander Zaag, P. Fox, R.L.; De La Pena, R.S.; Yost, R.S. Amsterdam, Elsevier Scientific Pub. Co. Field crops research. Nov 1979. v. 2 (3). p. 253-263. ill. Bibliography p. 262-263. (NAL Call No.: SB183.F5).

0144

Physiological changes accompanying mycorrhizal infection in leek.

Stribley, D.P. Snellgrove, R.C. Corvallis, Or. : Oregon State University, Forest Research Laboratory, 1985. Proceedings of the 6th North American Conference on Mycorrhizae : June 25-29, 1984, Bend, Oregon / compiled and edited by Randy Molina ; sponsoring institutions, Oregon State University, College of Forestry, and USDA. p. 395. Includes references. (NAL Call No.: DNAL aQK604.N6 1984).

0145

Physiology and phytochemistry (Taro, mineral nutrition).

Sunell, L.A. Arditti, J. Honolulu : University of Hawaii Press, c1983. Taro : a review of *Colocasia esculenta* and its potentials / edited by Jaw-Kai Wang. p. 34-140. ill. Includes references. (NAL Call No.: SB211.T2T37).

0146

Potassium nutrition of cassava.

Howeler, R.H. Madison, Wis. : American Society of Agronomy, 1985. Potassium in agriculture / Robert D. Munson, editor. Paper presented at an international symposium, 7-10 July 1985, Atlanta, Georgia. - Literature review. p. 819-841. Includes references. (NAL Call No.: DNAL S587.5.P6P68).

0147

Potassium nutrition of rape, flax, sunflower, and safflower.

Bailey, L.D. Soper, R.J. Madison, Wis. : American Society of Agronomy, 1985. Potassium in agriculture / Robert D. Munson, editor. Paper presented at an international symposium, 7-10 July 1985, Atlanta, Georgia. p. 765-798. Includes references. (NAL Call No.: DNAL S587.5.P6P68).

0148

The relation of sulfur to soil productivity. AGUDAT. Duley, F.L. Madison, Wis. : American Society of Agronomy. From the results obtained in this study the following brief summary may be given: Flowers of sulfur partly took the place of a soluble sulfate in a nutrient solution when used in a sand medium, and had a marked effect upon the production of chlorophyll in corn plants. When used alone flowers of sulfur was slightly beneficial to the growth of corn and rape and still more beneficial to the yield of red clover on the type of soil used in these experiments. Flowers of sulfur very markedly increased the production of nodules on the roots of red clover. Flowers of sulfur was oxidized to sulfate in both sand and soil cultures. It slightly increased soil acidity, and the lime requirement was directly correlated with the amount of soluble sulfate. The nitrate content varied inversely with amount of soluble sulfate in the soil. Agronomy journal. May/June 1916. v. 8 (3). p. 156-160. Includes references. (NAL Call No.: DNAL 4 AM34P).

0149

Responses of asparagus seedlings to three *Glomus endomycorrhizal* fungi.

Chang, D.C.N. Corvallis, Or. : Oregon State University, Forest Research Laboratory, 1985. Proceedings of the 6th North American Conference on Mycorrhizae : June 25-29, 1984, Bend, Oregon / compiled and edited by Randy Molina ; sponsoring institutions, Oregon State University, College of Forestry, and USDA. p. 369. Includes references. (NAL Call No.: DNAL aQK604.N6 1984).

0150

Variation in calcium efficiency among strains of cauliflower (Nutrient stress, plant physiology).

Hochmuth, G.J. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 667-672. ill. Includes 17 references. (NAL Call No.: 81 S012).

PLANT PHYSIOLOGY AND BIOCHEMISTRY

0151

ABA content and levels of GA (gibberellin)-like substances in asparagus buds and roots in relation to bud dormancy and growth.

Matsubara, S. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. July 1980. v. 105 (4). p. 527-532. ill. 21 ref. (NAL Call No.: 81 S012).

0152

Acridity of taro and related plants (Colocasia esculenta, dietary effect, Arum triphyllum).

Tang, C.S. Sakai, W.S. Honolulu : University of Hawaii Press, c1983. Taro : a review of Colocasia esculenta and its potentials / edited by Jaw-Kai Wang. p. 148-163. ill. Includes references. (NAL Call No.: SB211.T2T37).

0153

Aflatoxin production on two mushroom substrates (Boletus edulis, Agaricus bisporus, Aspergillus flavus, Aspergillus parasiticus).

Llewellyn, G.C. JFSAD. Martin, W.A. Jr.; Bean, G.A. Westport : Food & Nutrition Press. Journal of food safety. 1983. v. 5 (3). p. 113-118. Includes references. (NAL Call No.: TP373.5.J62).

0154

Agaritine content of fresh and processed mushrooms (Agaricus bisporus (Lange) Imbach).

Liu, J.W. JFDA. Beelman, R.B.; Lineback, D.R.; Speroni, J.J. Chicago : Institute of Food Technologists. Journal of food science. Sept/Oct 1982. v. 47 (5). p. 1542-1544, 1548. Includes references. (NAL Call No.: 389.8 F7322).

0155

The amino acid composition of cassava leaves, foliage, root tissues and whole-root chips.

NURIB. Gomez, G. Noma, A.T. Los Altos, Calif. : Geron-X, Inc. Nutrition reports international. Apr 1986. v. 33 (4). p. 595-601. Includes references. (NAL Call No.: DNAL RC620.A1N8).

0156

Anti-auxin effects of 3-oxo-1,2-benzisothiazolin-2-ylacetic acids (Helianthus tuberosus, Jerusalem artichokes, Pisum sativum, peas, Linum usitatissimum, flax).

Branca, C. Maggiali, C.A.; Mingiardi, M.R.; Ricci, D. New York : Springer. Journal of plant growth regulation. 1982. v. 1 (3). p. 243-249. ill. Includes references. (NAL Call No.: QK745.J6).

0157

Asparagus aphid feeding and freezing damage asparagus plants.

JOSH. Valenzuela, H.R. Bienz, D.R. Alexandria, Va. : The Society. Asparagus aphid Brachycorynella asparagi (Mordvilko) feeding without freezing reduced vigor of asparagus (*Asparagus officinalis L.*), as measured by crown size, fern growth, root necrosis, and bud number, but did not greatly reduce short-term survival. Freezing dormant crowns for 24 hr at -4.5°C killed some crowns and reduced vigor of survivors. Aphid feeding and freezing were synergistic; they reduced survival and vigor of survivors to a much greater extent than either aphid feeding or freezing alone. Aphid feeding resulted in early budbreak and precocious growth. A method for counting aphids per plant was developed. Journal of the American Society for Horticultural Science. July 1989. v. 114 (4). p. 578-581. Includes references. (NAL Call No.: DNAL 81 S012).

0158

Asparagus crown response to dikegulac.

HJHSA. Mahotiere, S. Johnson, C.; Cullers, P. Alexandria, Va. : American Society for Horticultural Science. HortScience. Apr 1988. v. 23 (2). p. 308-309. Includes references. (NAL Call No.: DNAL SB1.H6).

0159

Batavian escarole.

Morrow, J. Wyoming, Rhode Island : Bio-Dynamic Farming and Gardening Association. Bio-dynamics. Winter 1985. (153). p. 67-72. ill. (NAL Call No.: DNAL 56.8 B52).

0160

Bioaccumulation of Hg in the mushroom Pleurotus ostreatus.

EESAD. Bressa, G. Cima, L.; Costa, P. Duluth, Minn. : Academic Press. Ecotoxicology and environmental safety. Oct 1988. v. 16 (2). p. 85-89. ill. Includes references. (NAL Call No.: DNAL QH545.A1E29).

0161

The biological effects of gamma irradiation on secondary embryoids of *Brassica napus* ssp. *oleifera* (Metzg.) Sinsk., winter oilseed rape.

NEPHA. MacDonald, M.V. Newholme, D.M.; Ingram, D.S. New York, N.Y. : Cambridge University Press. The New phytologist. Oct 1988. v. 110 (2). p. 255-259. Includes references. (NAL Call No.: DNAL 450 N42).

(PLANT PHYSIOLOGY AND BIOCHEMISTRY)

0162

Breaking bud dormancy on corms and trees with sulfide compounds in garlic and horseradish.
HJHSA. Hosoki, T. Sakai, Y.; Hamada, M.; Taketani, K. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1986. v. 21 (1, section 1). p. 114-116. Includes references. (NAL Call No.: DNAL SB1.H6).

0163

Cassava-cowpea and cassava-peanut intercropping. II. Leaf area index and dry matter accumulation.
AGJOAT. Mason, S.C. Leihner, D.E.; Vorst, J.J.; Salazar, E. Madison, Wis. : American Society of Agronomy. Agronomy journal. Jan/Feb 1986. v. 78 (1). p. 47-53. Includes references. (NAL Call No.: DNAL 4 AM34P).

0164

Cassava-cowpea and cassava-peanut intercropping. III. Nutrient concentrations and removal.
AGJOAT. Mason, S.C. Leihner, D.E.; Vorst, J.J. Madison, Wis. : American Society of Agronomy. Agronomy journal. May/June 1986. v. 78 (3). p. 441-444. Includes references. (NAL Call No.: DNAL 4 AM34P).

0165

Changes in the sugar metabolism of asparagus plants infested by asparagus aphid, *Brachycorynella asparagi* and green peach aphid, *Myzus persicae*.
Leszczynski, B. Cone, W.W.; Wright, L.C. Clemson, S.C. : South Carolina Entomological Society. Journal of agricultural entomology. Jan 1986. v. 3 (1). p. 25-30. Includes references. (NAL Call No.: DNAL SB599.J69).

0166

Characterization of cyanogenic beta-glucosidase (linamarase) from cassava (*Manihot esculenta* Crantz).
ABBIA. Eksittikul, T. Chulavatnatol, M. Duluth, Minn. : Academic Press. Archives of biochemistry and biophysics. Oct 1988. v. 266 (1). p. 263-269. Includes references. (NAL Call No.: DNAL 381 AR2).

0167

The chemistry of garlic and onions.
SCAMA. Block, E. New York, N.Y. : Scientific American, Inc. Scientific American. Mar 1985. v. 252 (3). p. 114-119. ill. (NAL Call No.: DNAL 470 SCI25).

0168

Cold acclimation of asparagus seedlings subjected to low temperatures or water stress.
HJHSA. Burrows, R.L. Waters, L. Jr.; Markhart, A.H. III. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1989. v. 24 (5). p. 812-814. Includes references. (NAL Call No.: DNAL SB1.H6).

0169

Composition of Florida-grown vegetables II Effect of variety, location, season, fertilizer level and soil moisture on the organic composition of cabbage, beans, tomatoes, collards, broccoli and carrots /by Byron E. Janes.
Janes, Byron Everett, 1910-. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1949. Cover title. 44 p. ; 23 cm. Bibliography: p. 40-44. (NAL Call No.: DNAL 100 F66S (1) no.455).

0170

Composition of Florida-grown vegetables III Effects of location, season, fertilizer level and soil moisture on the mineral composition of cabbage, beans, collards, broccoli and carrots /by Byron E. Janes.
Janes, Byron Everett, 1910-. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1951. Cover title. 32 p. ; 23 cm. Bibliography: p. 31-32. (NAL Call No.: DNAL 100 F66S (1) no.488).

0171

Control of seed germination by abscisic acid.
PLPFA. Schopfer, P. Plachy, C. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Sept 1984. v. 76 (1). p. 155-160. ill. Includes 10 references. (NAL Call No.: DNAL 450 P692).

0172

Coordinated regulation of 4-coumarate:CoA ligase and phenylalanine ammonia-lyase mRNAs in cultured plant cells (Parsley).
Ragg, H. Kuhn, D.N.; Hahlbrock, K. Baltimore, American Society of Biological Chemists. The Journal of biological chemistry. Oct 10, 1981. v. 256 (19). p. 10061-10065. ill. 22 ref. (NAL Call No.: 381 J824).

(PLANT PHYSIOLOGY AND BIOCHEMISTRY)

0173

Correlation between changes in mitochondrial membranes of artichoke tubers and their hardening and dormancy.

Wright, L.C. Raison, J.K. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Oct 1981. v. 68 (4). p. 919-923. 25 ref. (NAL Call No.: 450 P692).

Call No.: 81 S012).

0174

Disulfiram metabolism in isolated mesophyll cells and inhibition of photosynthesis and cyanide-resistant respiration.

PLPFA. Bown, A.W. Pullen, J.; Shadeed, N.M. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Nov 1984. v. 76 (3). p. 846-848. ill. Includes 19 references. (NAL Call No.: DNAL 450 P692).

0179

Effects of partial defoliation at transplanting time on subsequent growth and yield of lettuce, cauliflower, celery, peppers, and onions by James E. Kraus. -.

Kraus, James E. Washington, D.C. U.S. Dept. of Agriculture 1942. 35 p. : ill. --. Bibliography: p. 34-35. (NAL Call No.: Fiche S-69 no.829).

0175

Effect of environment and a growth substance on development of wild garlic (*Allium vineale* L.) / by Donald Lee Barnes. -.

Barnes, Donald Lee, 1942-. 1970. Thesis (Ph.D.)--University of Missouri, 1970. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. 99 leaves ; 21 cm. Bibliography: leaves 96-99. (NAL Call No.: DISS 71-3,306).

0180

Eggplant.

Nothmann, J. Boca Raton, Fla. : CRC Press, 1986. CRC handbook of fruit set and development / edited by Shaul P. Monselise. Literature review. p. 145-152. ill. Includes references. (NAL Call No.: DNAL SB357.28.C73).

0176

Effect of harvest duration on yield and on depletion of storage carbohydrates in asparagus roots.

Shelton, D.R. Lacy, M.L. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. American Society for Horticultural Science. May 1980. v. 105 (3). p. 332-335. ill. 12 ref. (NAL Call No.: 81 S012).

0181

Endogenous gibberellins and cytokinins in spear tips of *Asparagus officinalis* in relation to sex expression.

JOSHB. Ombrello, T.M. Garrison, S.A. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1987. v. 112 (3). p. 539-544. Includes references. (NAL Call No.: DNAL 81 S012).

0177

The effect of sucrose and ancyimidol on the in vitro rooting of nodal sections of asparagus.
HJHSA. Desjardins, Y. Tiessen, H.; Harney, P.M. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1987. v. 22 (1). p. 131-133. Includes references. (NAL Call No.: DNAL SB1.H6).

0182

Enhanced yield of shiitake by saccharide amendment of the synthetic substrate.

APMBA. Royse, D.J. Bahler, B.D.; Bahler, C.C. Washington, D.C. : American Society for Microbiology. Three experiments were performed to determine the effect of selected saccharides on mushroom yield and basidiome size of shiitake (*Lentinula edodes*) when grown on a synthetic substrate. Substrate formulations of sawdust, wheat bran, and millet were nonamended or amended with sucrose, fructose, or glucose. Addition of sucrose (0.6 to 1.2% dry weight) to the substrate stimulated mushroom yield by 11 to 20% or more. Addition of fructose at 1.2% and glucose at 0.6% resulted in similar yield increases. Most yield increase occurred on the first break. The substrate amended with 1.2% sucrose tended to have a more synchronous maturation for the second break resulting in fewer days when mushrooms were harvested. Applied and environmental microbiology. Feb 1990. v. 56 (2). p. 479-482. Includes references. (NAL Call No.: DNAL 448.3 AP5).

0178

Effects of different endomycorrhizal fungi on five host plants grown on calcined montmorillonite clay (Apple, asparagus, leek, strawberry, oats).

Plenchette, C. Furian, V.; Fortin J.A. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. July 1982. v. 107 (4). p. 535-538. 16 ref. (NAL

(PLANT PHYSIOLOGY AND BIOCHEMISTRY)

0183

Evapotranspiration studies on taro in the Everglades (*Colocasia esculenta*, Florida).
Shih, S.F. Rahi, G.S.; Snyder, G.H. St. Joseph, Mich. : The Society. Paper - American Society of Agricultural Engineers (Microfiche collection). 1982. Paper presented at the 1982 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. 1982. (fiche no. 82-2595). 1 microfiche : ill. Includes references. (NAL Call No.: FICHE S-72).

0184

Extracellular enzymes produced by the cultivated mushroom *Lentinus edodes* during degradation of a lignocellulosic medium.
APMBA. Leatham, G.F. Washington, D.C. : American Society for Microbiology. Applied and environmental microbiology. Oct 1985. v. 50 (4). p. 859-867. Includes 48 references. (NAL Call No.: DNAL 448.3 AP5).

0185

Features and analysis of spore germination in the brown kame *Terfezia claveryi* (Mushrooms).
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0202

Localization of the enzymes of fructan metabolism in vacuoles isolated by a mechanical method from tubers of Jerusalem artichoke (*Helianthus tuberosus* L.).
PLPRA. Darwen, C.W.E. John, P. Rockville, Md. : American Society of Plant Physiologists. Vacuoles isolated by a mechanical slicing method from developing tubers of Jerusalem artichoke (*Helianthus tuberosus* L.) contain activities of the two principal enzymes responsible for fructan synthesis: sucrose-sucrose fructosyl transferase and fructan-fructan fructosyl transferase. Both enzymes are associated with the vacular sap and not with the tonoplast. In vacuoles isolated from dormant tubers, the fructan-fructan fructosyl transferase activity remains in the vacuolar sap but the fructan exohydrolase activity is associated with the tonoplast. Fructan is hydrolysed by these vacuoles to fructose, which can be exported to the suspending medium. The localization of the enzymes of fructan metabolism in the vacuole has implications for the maintenance of fructan polymerisation. Plant physiology. Includes statistical data. Feb 1989. v. 89 (2). p. 658-663. Includes references. (NAL Call No.:

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Oxidation of indole-3-acetic acid-amino acid conjugates by horseradish peroxidase.
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The participation of cyanide resistant pathway in respiration of winter rape plants treated with low temperature.

Rychter, A.M. Ciesla, E. New York : Plenum Press, c1987. Plant mitochondria : structural, functional, and physiological aspects / edited by A.L. Moore and R.B. Beechey. p. 369-372. Includes references. (NAL Call No.: DNAL QK725.P63).

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Physical and chemical factors in the growth of asparagus /Earl B. Working.
Working, Earl B. 1897-. Tucson, Ariz. : University of Arizona, 1924. Cover title. p. 87 -124 ; 23 cm. Bibliography: p. 122-124. (NAL Call No.: DNAL 100 Ar4 (2) no.5).

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Physiological changes accompanying mycorrhizal infection in leek.
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Physiological studies of Jerusalem artichoke tubers, with special references to the rest period by Clarence E. Steinbauer. -.
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Plant availability of heavy metals in a sludge-treated soil. II. Metal extractability compared with plant metal uptake (Fodder rape, soil pH, cadmium, nickel, lead cobalt, zinc).
Singh, B.R. Narwal, R.P. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1984. v. 13 (3). p. 344-349. Includes references. (NAL Call No.: QH540.J6).

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Auld, D.L. Bettis, B.L.; Dial, M.J. Madison : American Society of Agronomy. Agronomy journal. Mar/Apr 1984. v. 76 (2). p. 197-200. Includes references. (NAL Call No.: 4 AM34P).

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Polyphenol oxidase activity and enzymatic browning in mushrooms.

ACSMC. Flurkey, W.H. Ingebrigsten, J. Washington, D.C. : The Society. ACS Symposium series - American Chemical Society. In the series analytic: Quality Factors of Fruits and Vegetables / edited by Joseph J. Jen. ~ Literature review. 1989. (405). p. 44-54. Includes references. (NAL Call No.: DNAL QD1.A45).

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Postharvest physiology of vegetables /edited by J. Weichmann.

Weichmann, J. New York : M. Dekker, c1987. Abstract: An authoritative reference text for agricultural chemists and researchers, food scientists and technologists, and nutritionists provides detailed information on the postharvest physiology of root, leafy, flower, and immature and mature fruit vegetables. The 31 text chapters, prepared by international experts in their respective fields, are grouped among 6 sections, viz.: the classification and physiological and biochemical changes of vegetables during the harvest period; basic postharvest physiological characteristics (e.g.: gas exchange, hormonal alterations, cell membrane changes); the influence of postharvest factors (temperature, low O₂, high CO₂, CO, ethylene and other volatiles, storage air circulation) on postharvest reactions and keeping quality; postharvest diseases and injuries; sensory and nutritional quality changes; and physiological postharvest changes in specific vegetables (brassica, asparagus, fruit vegetables, root vegetables, and bulbs and tubers). Graphical and tabular data are presented throughout the text, and literature references are appended to each chapter. xii, 597 p. : ill. ; 24 cm. Includes bibliographies and index. (NAL Call No.: DNAL SB324.6.P67).

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Potassium nutrition of cassava.

Howeler, R.H. Madison, Wis. : American Society of Agronomy, 1985. Potassium in agriculture / Robert D. Munson, editor. Paper presented at an international symposium, 7-10 July 1985, Atlanta, Georgia. ~ Literature review. p. 819-841. Includes references. (NAL Call No.: DNAL S587.5.P6P68).

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Potassium nutrition of rape, flax, sunflower, and safflower.

Bailey, L.D. Soper, R.J. Madison, Wis. : American Society of Agronomy, 1985. Potassium in agriculture / Robert D. Munson, editor. Paper presented at an international symposium, 7-10 July 1985, Atlanta, Georgia. p. 765-798. Includes references. (NAL Call No.: DNAL S587.5.P6P68).

0222

A preliminary study of the influence of chlorides on the growth of certain agricultural plants.

AGJOAT. Tottingham, W.E. Madison, Wis. : American Society of Agronomy. A survey of previous field and greenhouse investigations of the effects of chlorides upon the growth and composition of plants discloses extremely variable results. It is apparent that the species of plant, the type of soil, and

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especially the complex of factors considered as climate, greatly influence these effects. In the present investigation the introduction of potassium and sodium chlorides into water cultures but slightly affected wheat plants during the first five weeks after germination. Buckwheat grown to apparent maturity in similar cultures was decidedly affected by the application of these chlorides. Although seed production remained apparently undisturbed, the length of roots and the yield of dry matter was depressed. The least production of dry matter in leaf blades and the greatest depression of water absorption per unit of dry matter of the foliar tissue occurred in the presence of sodium chloride. The radish responded only slightly, in yield and composition, to the application of potassium and sodium chlorides along with complete fertilizer in soil cultures in the greenhouse. Under similar conditions, increased production of dry matter and of the percentages of sugars therein resulted with the carrot, while the reverse was true of the parsnip. In the latter case sodium chloride was particularly injurious. The sugar beet gave the same general responses to chlorides as did the carrot, when grown in the greenhouse. While the roots were more watery where chlorides were applied, the yield of dry matter was greatly increased. The dry matter of such roots contained more glucose, but less sucrose, than that obtained from cultures in soil not receiving chlorides. Similar responses followed the application of common salt alone to beets grown in the field. The potato produced increased yields of dry matter in the tuber when potassium chloride was supplied in place of potassium sulfate, in a complete fertilizer ration, to soil cultures in the greenhouse. Relat. Agronomy journal. Literature review. Jan 1919. v. 11 (1). p. 1-32. Includes references. (NAL Call No.: DNAL 4 AM34P).

0223

Premature heading of cauliflower as associated with the chemical composition of the plant /W.R. Robbins, G.T. Nightingale and L.G. Schermerhorn.

Robbins, W. R. 1899-. Nightingale, G. T. 1898-; Schermerhorn, L. G. 1887-. New Brunswick, N.J. : New Jersey Agricultural Experiment Station, 1931. 14 p. : ill. ; 23 cm. Bibliography: p. 14. (NAL Call No.: DNAL 100 N46S (1) no.509).

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Processing and chemical investigations of taro /by John H. Payne, Gaston J. Ley, George Akau. Payne, John Howard, 1906-. Ley, Gaston J.; Akau, George Herbert. Honolulu : Hawaii Agricultural Experiment Station, University of Hawaii, 1941. 41 p. : ill. ; 23 cm. Bibliography: p. 34-36. (NAL Call No.: DNAL 100 H313 (1) no.86).

0225

The production and utilization of microspore-derived haploids in *Brassica* crops (Oilseed rape, anther culture).

Keller, W.A. Armstrong, K.C.; Roche, A.I. de la. New York : Plenum Press, c1983. Plant cell culture in crop improvement / edited by S.K. Sen and Kenneth L. Giles. p. 169-183. 27 ref. (NAL Call No.: SB123.6.P5).

0226

Production of alcohol from Jerusalem artichokes by yeasts (*Saccharomyces diastaticus*, *Saccharomyces cerevisiae*, *Kluyveromyces fragilis*).

Duvnjak, Z.BIBIA. Kosaric, N.; Kliza, S. New York : John Wiley & Sons. Biotechnology and bioengineering. Nov 1982. v. 24 (11). p. 2297-2308. Includes references. (NAL Call No.: 381 J8224).

0227

Productivity of *Agaricus brunnescens* stock cultures following 5-, 7-, and 10-year storage periods in liquid nitrogen (Mushrooms).

Jodon, M.H.CRYBA. Royse, D.J.; Jong, S.C. New York : Academic Press. Cryobiology. Dec 1982. v. 19 (6). p. 602-606. 18 ref. (NAL Call No.: QH324.C7).

0228

Promotion of shoot and root formation in asparagus *in vitro* by ancyminol (Growth retardant, tissue culture).

Chin, C.K. Alexandria, Va., American Society for Horticultural Science. HortScience. Aug 1982. v. 17 (4). p. 590-591. ill. 8 ref. (NAL Call No.: SB1.H6).

0229

Reduction of N (nitrogen)-acetyl methionine sulfoxide in plants (Spinach, potatoes, leek, safflower, pea, castor bean, barley).

Sanchez, J.PLPHA. Nikolau, B.J.; Stumpf, P.K. Rockville : American Society of Plant Physiologists. Plant physiology. Nov 1983. v. 73 (3). p. 619-623. Includes references. (NAL Call No.: 450 P692).

0230

Relationship between uptake of mercury vapor by mushrooms and its catalase activity (Shiitake).

Ogata, M. Kenmotsu, K.; Hirota, N.; Naito, M. New York, Springer. Bulletin of environmental contamination and toxicology. Dec 1981. v. 27 (6). p. 816-820. Includes ref. (NAL Call No.: RA1270.P35A1).

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0231

The relationships between ferricyanide reduction and associated proton efflux in mechanically isolated photosynthetically competent mesophyll cells.

NASSD. Bown, A. Crawford, L.; Rodriguez, D. New York, N.Y. : Plenum Press. NATO ASI series : Series A : Life sciences. In the series analytic: Plasma membrane oxidoreductases in control of animal and plant growth / edited by F.L. Crane, D.J. Morre and H. Low. Proceedings of a NATO Advanced Research Workshop, March 21-25, 1988, Cordoba, Spain. 1988. v. 157. p. 243-252. Includes references. (NAL Call No.: DNAL QH301.N32).

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Relative concentrations of cadmium and zinc in tissue of selected food plants grown on sludge-treated soils.

JEVQAA. Kim, S.J. Chang, A.C.; Page, A.L.; Warneke, J.E. Madison, Wis. : American Society of Agronomy. Twelve selected food plants were grown in greenhouse pots to determine the relative concentration of Cd and Zn in the plants grown in sludge-treated soils. The relative concentration of the metal was calculated as the quotient of the metal content in a plant and that in Swiss chard (*Beta vulgaris* subsp. *cicla* (L.) Koch) grown under the same soil conditions. The relative concentrations of Cd and Zn of food plants grown in several sludge-treated soils were significantly different ($p < 0.01$), but the relative concentrations of these plants in one soil has the statistical characteristics (e.g., range, mean, median, coefficient of variation, etc.) as those in another soil. Journal of environmental quality. Oct/Dec 1988. v. 17 (4). p. 568-573. Includes references. (NAL Call No.: DNAL QH540.J6).

0233

Responses of asparagus seedlings to three *Glomus endomycorrhizal* fungi.

Chang, D.C.N. Corvallis, Or. : Oregon State University, Forest Research Laboratory, 1985. Proceedings of the 6th North American Conference on Mycorrhizae : June 25-29, 1984, Bend, Oregon / compiled and edited by Randy Molina ; sponsoring institutions, Oregon State University, College of Forestry, and USDA. p. 369. Includes references. (NAL Call No.: DNAL aQK604.N6 1984).

0234

Saccharification of untreated agrowastes during mycelial growth of mushroom *Termitomyces clypeatus* on solid beds.

Sengupta, S. Naskar, A.K.; Jana, M.L. New York, N.Y. : John Wiley & Sons. Biotechnology and bioengineering. Feb 1984. v. 26 (2). p. 156-190. Includes references. (NAL Call No.: 381 J8224).

0235

Salinity effects on asparagus yield and vegetative growth.

JOSHB. Francois, L.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1987. v. 112 (3). p. 432-436. Includes references. (NAL Call No.: DNAL S012).

0236

Shiitake: cultivated mushroom.

Rafats, J. Beltsville, Md. : The Library. Quick bibliography series - National Agricultural Library (U.S.). Bibliography. Jan 1986. (86-28). 7 p. (NAL Call No.: DNAL aZ5071.N3).

0237

Shiitake growers handbook the art and science of mushroom cultivation /Paul Przybylowicz, John Donoghue.

Przybylowicz, Paul. Donoghue, John. Dubuque, IA : Kendall/Hunt Publishing Co., c1988. xiv, 217 p. : ill. ; 23 cm. Includes bibliographies and index. (NAL Call No.: DNAL SB353.5.S55P71).

0238

Soil matric potential, plant water relations, and growth in asparagus.

HJHSA. Wilcox-Lee, D. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1987. v. 22 (1). p. 22-24. Includes references. (NAL Call No.: DNAL SB1.H6).

0239

Stimulation of H⁺ (hydrogen ion) efflux and inhibition of photosynthesis by esters of carboxylic acids (*Asparagus sprengeri*).

Duhaime, D.E. PLPHA. Bown, A.W. Rockville : American Society of Plant Physiologists. Plant physiology. Nov 1983. v. 73 (3). p. 828-833. Includes references. (NAL Call No.: 450 P692).

0240

Studies on freezing injury in plant cells. II. Protein and lipid changes in the plasma membranes of Jerusalem artichoke tubers during a lethal freezing *in vivo*.

PLPHA. Uemura, M. Yoshida, S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1985. v. 80 (1). p. 187-195. ill. Includes 34 references. (NAL Call No.: DNAL 450 P692).

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0241

Studies on the biosynthesis of the aglycone of progoitrin in rutabaga / by Arthur Chiu-Jong Lee. -.

Lee, Arthur Chiu-Jong, 1932-. 1970. Thesis (Ph.D.)-Ohio State University, 1970. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. xiii, 174 leaves ; 21 cm. Bibliography: leaves 163-174. (NAL Call No.: DISS 71-18,040).

0242

Study of operational variables in the submerged growth of Pleurotus ostreatus mushroom mycelium.

USBID. Manu-Tawiah, W. Martin, A.M. Clifton, N.J. : Humana Press. Applied biochemistry and biotechnology. Apr 1987. v. 14 (3). p. 221-229. Includes references. (NAL Call No.: DNAL QD415.A1J62).

0243

Sucrose synthase, a cytosolic enzyme in protoplasts of Jerusalem artichoke tubers (*Helianthus tuberosus* L.).

PLPNA. Keller, F. Frehner, M.; Wiemken, A. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Oct 1988. v. 88 (2). p. 239-241. Includes references. (NAL Call No.: DNAL 450 P692).

0244

Synthesis of brassinosteroids and relationship of structure to plant growth-promoting effects (Isolated from rape pollen).

Thompson, M.J. Meudt, W.J.; Mandava, N.B.; Dutky, S.R.; Lusby, W.R.; Spaulding, D.W. San Francisco, Holden-Day. Steroids. Jan 1982. v. 39 (1). p. 89-105. Includes 18 ref. (NAL Call No.: 381 ST4).

0245

Time course of induction of cytochrome P-450, NADPH-cytochrome c reductase, and cinnamic acid hydroxylase by phenobarbital, ethanol, herbicides, and manganese in higher plant microsomes (Jerusalem artichokes).

Reichhart, D. Salaun, J.P.; Benveniste, I.; Durst, F. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Oct 1980. v. 66 (4). p. 600-604. ill. 27 ref. (NAL Call No.: 450 P692).

0246

Tissue culture: a boon for asparagus.

Naegele, V. Willoughby, Ohio : Meister Publishing Company. American vegetable grower. Sept 1983. v. 31 (9). p. 39. (NAL Call No.: 80 C733).

0247

Trifluoperazine inhibition of electron transport and adenosine triphosphatase in plant mitochondria (*Phaseolus aureus*, mung beans, *Helianthus tuberosus*, Jerusalem artichokes, *Arum maculatum*, *Sauromatum guttatum*).

Dunn, P.P.J. Slabas, A.R.; Cottingham, I.R.; Moore, A.L. New York : Academic Press. Archives of biochemistry and biophysics. Feb 15, 1984. v. 229 (1). p. 287-294. Includes references. (NAL Call No.: 381 AR2).

0248

Triterpene alcohols, 4-methylsterols and 4-desmethylsterols of eggplant seed oil: a new phytosterol.

LPDSAP. Farines, M. Cocallemen, S.; Soulier, J. Champaign, Ill. : American Oil Chemists' Society. Lipids. Apr 1988. v. 23 (4). p. 349-354. Includes references. (NAL Call No.: DNAL QP751.L5).

0249

UV-B radiation and photosynthetic irradiance acclimate eggplant for outdoor exposure.

HJHSA. Latimer, J.G. Mitchell, G.A. Alexandria, Va. : American Society for Horticultural Science. HortScience. June 1987. v. 22 (3). p. 426-429. Includes references. (NAL Call No.: DNAL SB1.H6).

0250

Variation in calcium efficiency among strains of cauliflower (Nutrient stress, plant physiology).

Hochmuth, G.J. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 667-672. ill. 17 ref. (NAL Call No.: 81 S012).

0251

Variation in seed weight and its effects on germination in *Pastinaca sativa* L. (Umbelliferae) (Wild parsnip).

Hendrix, S.D. Baltimore, Md. : Botanical Society of America. American journal of botany. July 1984. v. 71 (6). p. 795-802. Includes 1 p. references. (NAL Call No.: 450 AM36).

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Variation of myristicin content in cultivated parsnip roots (*Pastinaca sativa* ssp. *sativa* var. *hortensis*).

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Cabbage aphid, *Brevicoryne brassicae* (L.), control in brussels sprouts in relation to crop development.

Zalom, F.G. Pickel, C. Clemson, S.C. : South Carolina Entomological Society. Journal of agricultural entomology. July 1988. v. 5 (3). p. 161-167. Includes references. (NAL Call No.: DNAL SB599.J69).

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Cabbage looper control on collards, 1981
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Cantelo, W.W. JEENAI. College Park : Entomological Society of America. Journal of economic entomology. Dec 1983. v. 76 (6). p. 1433-1436. Includes references. (NAL Call No.: 421 J822).

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Control of lepidoptera larvae on collards with nuclear polyhedrosis viruses and *Bacillus thuringiensis*, 1981 (Biological control). Tompkins, G.J. Linduska, J.L.; Dougherty, E.M.; Young, J. College Park : Entomological Society of America. Insecticide and acaricide tests. 1982. v. 7. p. 84-85. (NAL Call No.: SB950.A1I49).

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Control of *Megaselia halterata*, a phorid fly pest of commercial mushroom production, by insecticidal treatment of the compost or casing material.
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Cyanide fumigation of mushroom houses /by A.C. Davis and H.V. Claborn.

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Damage by tarnished plant bug and alfalfa plant bug (Heteroptera: Miridae) to asparagus (*Lygus lineolaris*, *Adelphocoris lineolatus*).

Grafius, E.JEENA. Morrow, E.A. College Park : Entomological Society of America. Journal of economic entomology. Oct 1982. v. 75 (5). p. 882-884. Includes references. (NAL Call No.: 421 J822).

0303

Damage by the cabbage maggot, *Hylemya* (*Delia*) *brassicae* (Diptera: Anthomyiidae), to brussels sprouts.

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Damage threshold to a commercial mushroom by a mushroom-infesting phorid (Diptera: Phoridae) (*Megaselia halterata*, *Agaricus brunneces*).

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Degradation of disulfoton in soil and its translocation into asparagus (Control of the european asparagus aphid, *Brachycolus asparagi*).

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Dietary effects of phytoecdysones in the leek-moth, *Acrolepiopsis assectella* Zell. (Lepidoptera:Acrolepiidae).

JCECD. Arnault, C. Slama, K. New York, N.Y. : Plenum Press. Journal of chemical ecology. Oct 1986. v. 12 (10). p. 1979-1986. ill. Includes references. (NAL Call No.: DNAL QD415.A1J6).

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Disappearance of acephate residues from beans, carrots, celery, lettuce, peppers, potatoes, strawberries, and tomatoes.

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Drip chemigation of asparagus with disulfoton: *Brachycorynella asparagi* (Homoptera: Aphididae) control and disulfoton degradation.

JEENAI. Wildman, T.E. Cone, W.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. Dec 1986. v. 79 (6). p. 1617-1620. Includes references. (NAL Call No.: DNAL 421 J822).

0311

Economic threshold for three species of lepidopterous larvae attacking cauliflower grown in southern Ontario.

JEENAI. Stewart, J.G.G. Sears, M.K. Lanham, Md. : Entomological Society of America. Journal of economic entomology. Dec 1988. v. 81 (6). p. 1726-1731. Includes references. (NAL Call No.:

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0312

Edovum puttleri (Hymenoptera: Eulophidae), an egg parasitoid of Colorado potato beetle (Coleoptera: Chrysomelidae): development and parasitism on eggplant.

JEENAI. Lashomb, J. Ng, Y.S.; Jansson, R.K.; Bullock, R. College Park, Md. : Entomological Society of America. Journal of economic entomology. Feb 1987. v. 80 (1). p. 65-68. Includes references. (NAL Call No.: DNAL 421 J822).

0313

Effect of allyl isothiocyanate on field behavior of crucifer-feeding flea beetles (Coleoptera: Chrysomelidae) (Phyllotreta cruciferae, Psylliodes punctulata, Phyllotreta bipustulata, Phyllotreta striolata, rutabagas). Vincent, C. Stewart, R.K. New York, N.Y. : Plenum Press. Journal of chemical ecology. Jan 1984. v. 10 (1). p. 33-39. Includes references. (NAL Call No.: QD415.A1J6).

0314

The effect of mushroom mycelial growth on the reproduction of a mushroom-infesting sciarid, Lycoriella mali. Kielbasa, R. Snetsinger, R. University Park, Pa., Entomological Society of Pennsylvania. The Melsheimer entomological series. Dec 1981. Dec 1981. (31). p. 15-18. ill. 12 ref. (NAL Call No.: QL461.M4).

0315

Effect of mushroom mycelium growth on population development of Lycoriella mali, nematodes, and mites in compost (Mushroom-infesting sciarid). Cantelo, W.W. San Antonio, J.P. College Park, Md., Entomological Society of America. Environmental entomology. Feb 1982. v. 11 (1). p. 227-230. Includes 25 ref. (NAL Call No.: QL461.E532).

0316

Effect of weedy backgrounds on colonization of collards by green peach aphid, Myzus persicae, and its major predators. Horn, D.J. College Park, Md., Entomological Society of America. Environmental entomology. June 1981. v. 10 (3). p. 285-289. ill. 15 ref. (NAL Call No.: QL461.E532).

0317

Effectiveness of *Bacillus thuringiensis* var. *israelensis* in controlling a sciarid fly, *Lycoriella mali*, in mushroom compost.

Cantwell, G.E. Cantelo, W.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. Apr 1984. v. 77 (2). p. 473-475. Includes references. (NAL Call No.: 421 J822).

0318

Effectiveness of microbial and chemical insecticides for controlling cabbage looper (Lepidoptera: Noctuidae) and imported cabbageworm (Lepidoptera: Pieridae) on collards in Maryland.

JEENAI. Tompkins, G.J. Linduska, J.J.; Young, J.M.; Dougherty, E.M. College Park, Md. : Entomological Society of America. Journal of economic entomology. Apr 1986. v. 79 (2). p. 497-501. Includes references. (NAL Call No.: DNAL 421 J822).

0319

Effects of food plant and diapause on adult survival and fecundity of Colorado potato beetle (Coleoptera: Chrysomelidae).

EVETEX. Jansson, R.K. Zitzman, A.E. Jr.; Lashomb, J.H. Lanham, Md. : Entomological Society of America. Currently, a mass rearing technique for the egg parasitoid, *Edovum puttleri* Grissell, of the Colorado potato beetle (CPB), *Leptinotarsa decemlineata* (Say), is lacking. An important component of such a system would be maximization of CPB egg production per day. The present studies characterized the effects of two factors, food plant and diapause history, on CPB egg production. Two greenhouse experiments determined the survivorship and fecundity of CPB on three food plants, potato, *Solanum tuberosum* L. cv. Pungo; tomato, *Lycopersicon lycopersicum* (L.) Karsten var. *lycopersicum*, cv. Pick Red; and eggplant, *S. melongena* L. cv. Harris Special and cv. White. A third study compared the survivorship and fecundity of a field-collected population that had been in a state of diapause at 10 degrees C for 6 mo with that of CPB from the same population cultured on potato in the greenhouse for the same period. Survivorship and longevity of adults did not differ among most food plants. Total egg mass and egg production per female and egg mass size were greatest on potato followed in decreasing order by tomato and 'Harris Special' eggplant in one study, and were greatest on tomato followed by potato, 'White' eggplant, and 'Harris Special' eggplant in the second study. Fecundity per day was greatest on potato and tomato in the first and second studies, respectively. Adult longevity, survivorship, total egg mass and egg production per female, and egg mass size did not differ between CPB that had diapaused and those that had not diapaused; however, fecundity per day was greater for CPB that had diapaused than for CPB that had not diapaused. The importance of

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these data in the development of a mass rearing technique for *E. puttleri* is discussed.
Environmental entomology. Apr 1989. v. 18 (2). p. 291-297. Includes references. (NAL Call No.: DNAL QL461.E532).

0320

Effects of methoprene on *Lycoriella mali* (Diptera: Sciaridae).

JEENAI. Keil, C.B. Othman, M.H. Lanham, Md. : Entomological Society of America. Journal of economic entomology. Dec 1988. v. 81 (6). p. 1592-1597. Includes references. (NAL Call No.: DNAL 421 J822).

0321

Effects of plant diversity on the density and herbivory of the flea beetle, *Phyllotreta cruciferae*, in California collard (*Brassica oleracea*) cropping systems.

Altieri, M.A. Giessman, S.R. Guildford, Eng. : Butterworths. Crop protection. Dec 1983. v. 2 (4). p. 497-501. Includes references. (NAL Call No.: SB599.C8).

0322

Efficacy, persistence, and phytotoxicity of aldicarb applied as a pretransplant treatment to eggplant for Colorado potato beetle (Coleoptera: Chrysomelidae) protection (*Leptinotarsa decemlineata*, *Solanum melongena*).
Silcox, C.A. Lashomb, J.H.; Ghidiu, G.M.; Race, S.R. College Park, Md. : Entomological Society of America. Journal of economic entomology. Apr 1984. v. 77 (2). p. 529-533. Includes references. (NAL Call No.: 421 J822).

0323

European import: aphid (*Brachycolus asparagi*) threatens Western asparagus. Washington crop has suffered severe losses.

San Francisco, California Farmer. Agrichemical age. Dec 1980. v. 24 (10). p. 12, 17. (NAL Call No.: 381 AG85).

0324

Evaluation of possible nonlethal side effects of permethrin used in predator exclusion experiments to evaluate *Amblyseius limonicus* (Acari: Phytoseiidae) in biological control of cassava mites (Acari: Tetranychidae).

EVETEX. Braun, A.R. Guerrero, J.M.; Bellotti, A.C.; Wilson, L.T. College Park, Md. : Entomological Society of America. Environmental entomology. Aug 1987. v. 16 (4). p. 1012-1018. ill. Includes references. (NAL Call No.: DNAL QL461.E532).

0325

Exposure of *Brachycorynella asparagi* (Homoptera: Aphididae) eggs to water vapor deficits: effects on water loss and mortality of eggs and longevity of first-instar fundatrices.

EVETEX. Wright, L.C. Cone, W.W. College Park, Md. : Entomological Society of America. Environmental entomology. Aug 1986. v. 15 (4). p. 989-993. Includes references. (NAL Call No.: DNAL QL461.E532).

0326

Field effect of insecticides on *Chrysanthemum leafminer* (*Phytomyza syngenesiae*) and a primary parasitoid, *Chrysocharis aninsliei* (Crawford), on artichokes in California.

Lange, W.H. Agosta, G.G.; Goh, K.S.; Kishiyama, J.S. College Park, Md., Entomological Society of America. Environmental entomology. Oct 1980. v. 9 (5). p. 561-562. ill. 9 ref. (NAL Call No.: QL461.E532).

0327

Flea beetles (*Phyllotreta cruciferae*, *Phyllotreta striolata*) attacking forage kale: effect of carbofuran and tillage methods.

Reed, H.E. Byers, R.A. College Park, Md., Entomological Society of America. Journal of economic entomology. June 1981. v. 74 (3). p. 334-337. Bibliography p. 337. (NAL Call No.: 421 J822).

0328

Flight activity and oviposition of the cabbage maggot, *Delia radicum* (Diptera: anthomyiidae), in relation to damage to rutabagas.

JEENAI. Sears, M.K. Dufault, C.P. College Park, Md. : Entomological Society of America. Journal of economic entomology. Feb 1986. v. 79 (1). p. 54-58. Includes references. (NAL Call No.: DNAL 421 J822).

0329

Growing cauliflower and broccoli.

XDAFA. Washington, D.C. : The Department. Farmers' bulletin - United States Department of Agriculture. 1984. (2239, rev.). 14 p. ill. (NAL Call No.: DNAL 1 AG84F).

0330

Hawaiian fruit flies in papaya, bell pepper, and eggplant: quarantine treatment with gamma irradiation.

JEENAI. Seo, S.T. Kobayashi, R.M.; Chambers, D.L.; Dollar, A.M.; Hanaoka, M. College Park, Md. : Entomological Society of America. Journal of economic entomology. Aug 1973. v. 66 (4). p.

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937-939. Includes references. (NAL Call No.: DNAL 421 J822).

0331

Impact of insecticide schedule, N and K rates and transplant container size on cauliflower yield.

AAREEZ. Csizinszky, A.A. Schuster, D.J. New York : Springer. Applied agricultural research. 1988. v. 3 (1). p. 12-16. Includes references. (NAL Call No.: DNAL S539.5.A77).

0332

Influence of group size on daily per capita birth rates of the cabbage aphid (Homoptera: Aphididae) on collards.

EVETEX. Lopez, E.R. Van Driesche, R.G.; Elkinton, J.S. Lanham, Md. : Entomological Society of America. Daily per capita birth rates of the cabbage aphid, *Brevicoryne brassicae* (L.), increased 40-50% as numbers of adult female aphids in artificially created groups on kale plants increased from three or fewer to six or more adults. Reproduction was enhanced at a declining rate such that the maximal effect was observed at 10 females per group, with no further increase up to 27 females per group. Increasing the number of females per group enhanced per capita birth rates on potted kale plants under greenhouse conditions and on field-grown kale plants. Enhancement under field conditions was observed in warm (22 degrees C) but not cool (15 degrees C) periods. Environmental entomology. Dec 1989. v. 18 (6). p. 1086-1089. Includes references. (NAL Call No.: DNAL QL461.E532).

0333

Influence of management practices on severity of stem and crown rot, incidence of asparagus miner, and yield of asparagus grown from transplants.

PLDRA. Damicon, J.P. Manning, W.J.; Ferro, D.N. St. Paul, Minn. : American Phytopathological Society. Plant disease. Jan 1987. v. 71 (1). p. 81-84. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0334

The influence of phorid and sciarid populations on mushroom yield at commercial mushroom farms in Pennsylvania.

PPASA. Rinker, D.L. Finley, R.J.; Wuest, P.J.; Snetsinger, R.; Tetrault, R.; Royse, D.J. Harrisburg, Pa. : The Academy. Proceedings of the Pennsylvania Academy of Science. 1984. v. 58 (1). p. 70-72. Includes 17 references. (NAL Call No.: DNAL 500 P383).

0335

Influence of (the insecticide) acephate on asparagus flavor and its effectiveness for control of redbacked cutworms (*Euxoa ochrogaster*).

Cone, W.W. AR-W. Drake, S.R. Alexandria, Va.. American Society for Horticultural Science. HortScience. Feb 1980. v. 15 (1). p. 31. ill. 2 ref. (NAL Call No.: SB1.H6).

0336

Insect and nematode control recommendations for asparagus, egg plant, okra, peppers, and sweet corn.

Toscano, N.C. (comp.). CA. Burton, V.; Radewald, J.; Thomason, I.; Toscano, N.; Johnson, D.; McCalley, N.; Stimmann, M. Berkeley, The Service. Leaflet - Division of Agricultural Sciences, University of California. California. University, Berkeley. Cooperative Extension Service. Dec 1979. Dec 1979. (21140). 8 p. ill. (NAL Call No.: S544.3.C2C3).

0337

Insect and nematode control recommendations for table beets, carrots, parsnips, sweet potatoes, and turnips.

Toscano, N.C. (comp.). CA. Burton, V.; Hart, W.; Johnson, D.; Radewald, J.; Thomason, I.; Toscano, N.; Lang, W.; Stimmann, M. Berkeley, The Service. Leaflet - Division of Agricultural Sciences, University of California. California. University, Berkeley. Cooperative Extension Service. Dec 1979. Dec 1979. (2750). 7 p. ill. (NAL Call No.: S544.3.C2C3).

0338

Integrated pest management for mushroom farming.

Wetzel, H.A. Wuest, P.J.; Snetsinger, R.; Royse, D.J.; Tetrault, R.C. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 61-67. ill. (NAL Call No.: DNAL SB353.P42).

0339

Interactions of insecticides, a carabid predator (*Bembidion lampros*), a staphylinid parasite (*Aleochara bilineata*), and cabbage maggots (*Hylemya brassicae*) in cauliflower.

Finlayson, D.G. Mackenzie, J.R.; Campbell, C.J. College Park, Md., Entomological Society of America. Environmental entomology. Dec 1980. v. 9 (6). p. 789-794. 19 ref. (NAL Call No.: QL461.E532).

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0340

Irradiation disinestation of asparagus spears contaminated with Brachycorynella asparagi (Mordvilko) (Homoptera: Aphididae).

JEENAI. Halfhill, J.E. College Park, Md. : Entomological Society of America. Abstract: Asparagus spears infested with the aphid Brachycorynella asparagi (Mordvilko) were used to determine effects of gamma irradiation upon aphids. At 20 degrees C, all second instars died at doses as low as 5 Gy; adults died at doses above 10 Gy. Doses above 80 Gy prevented both the molt from fourth instar to adult and the production of progeny by adults. No live progeny were produced at doses above 10 Gy. At 2.2 degrees C, 3-to 6-fold increases in dose or time after treatment were required to achieve effects seen at 20 degrees C. Results suggest that a dose of 100 Gy applied at 20 degrees C would suffice as a quarantine treatment. Journal of economic entomology. June 1988. v. 81 (3). p. 873-876. Includes references. (NAL Call No.: DNAL 421 J822).

0341

Laboratory and field studies on the antifeedant effect of piperonyl butoxide against the Colorado potato beetle on eggplant.

Silcox, C.A. Ghidiu, G.M. Clemson, S.C. : South Carolina Entomological Society. Journal of agricultural entomology. Apr 1986. v. 3 (2). p. 135-142. Includes references. (NAL Call No.: DNAL SB599.J69).

0342

Life history of a sciarid fly, Lycoriella mali, and its injury threshold on the commercial mushroom (Includes taxonomy).

Kielbasa, R.PAABA. Snetsinger, R. University Park : The Station. Bulletin - Pennsylvania State University, Agricultural Experiment Station. Dec 1980. Dec 1980. (833). 14 p. ill. 3 p. ref. (NAL Call No.: 100 P381).

0343

Managing cabbage aphids in brussels sprouts.

CAGRA. Pickel, C. Zalom, F.G.; Welch, N.C. Berkeley, Calif. : The Station. California agriculture - California Agricultural Experiment Station. Jan/Feb 1988. v. 42 (1). p. 26. (NAL Call No.: DNAL 100 C12CAG).

0344

Microarthropods associated with insecticide-treated and untreated artichoke fields in California.

JEENAI. Goh, K.S. Lange, W.H. Lanham, Md. : Entomological Society of America. Samples of microarthropods from artichoke leaves, flower heads, and soil debris were taken from fields where growing conditions were similar except

for insecticide treatment; fields were treated in Castroville and untreated in Carmel Valley, Calif. Methyl parathion and methidathion were applied every 2 wk for the control of the artichoke plume moth, *Platyptilia carduidactyla* (Riley), the major pest of artichoke. Pesticide-treated fields had eight fewer predatory and phytophagous microarthropod species. *Anystis* sp. was absent; numbers of *Parasitus bituberosus* Karg and *Pergamasus quisquiliarum* Canestrini were reduced in treated fields. These mites are important predators of artichoke pests including first- and second-instar artichoke plume moth, thrips, aphids, and mites. A secondary outbreak of *Tetranychus urticae* Koch was observed in methyl parathion-treated fields. These factors should be considered in an IMP program for artichoke. Journal of economic entomology. Apr 1989. v. 82 (2). p. 621-625. Includes references. (NAL Call No.: DNAL 421 J822).

0345

Miscellaneous truck-crop insects in Louisiana I. Insects injurious to the globe artichoke in Louisiana /by Thos. H. Jones. II. The granulated cutworm, an important enemy of vegetable crops in Louisiana /by Thos H. Jones.
Jones, Thomas Henry, 1885-1941. Washington, D.C. : U.S. Dept. of Agriculture, 1918. Caption title.~ "November 20, 1918." 19 p., 5 p. of plates : ill. ; 24 cm. (NAL Call No.: DNAL 1 Ag84B no.703).

0346

Mites attacking cassava in southern Florida: damage descriptions and density estimate methods (*Mononychellus caribbeanae*, *Tetranychus urticae*, *Panonychus citrus*).
Pena, J.E. Waddill, V.H.; O'Hair, S.K. Gainesville, Fla. : Florida Entomological Society. Florida entomologist. Mar 1984. v. 67 (1). p. 141-146. ill. Includes references. (NAL Call No.: 420 F662).

0347

Movement of *Lycoriella mali* (Diptera: Sciaridae) through mushroom-growing medium.
JEENAI. Cantelo, W.W. Lanham, Md. : Entomological Society of America. Knowledge of the location of *Lycoriella mali* (Fitch) in mushroom-growing medium throughout the insect's life cycle may enable mushroom growers to direct control efforts where the insects are concentrated, thus reducing control costs and insecticide usage. Compost and casing, exposed to a laboratory colony of *L. mali*, were divided into several horizontal layers by nylon netting that did not inhibit insect movement. At regular intervals (3-5 d) after exposure to *L. mali*, each layer of medium was extracted to determine the number and stage of insects in the layer. Insects were extracted from the medium by screening, differential sucrose densities, and centrifugation. Females

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penetrated the compost to a depth of 5.7 cm to oviposit, but most eggs were laid at 1.9-3.8 cm. As larvae hatched and matured, most moved deeper into the compost. Late fourth instars or pupae migrated to the upper level of the compost. Very little movement into casing occurred when the compost was infested before casing was added; infestation of casing resulted from exposure of the medium to flies after the casing was added. Results indicate that directing control efforts to the upper few cm of compost would provide the greatest return for the effort. *Journal of economic entomology*. Feb 1988. v. 81 (1). p. 195-200. Includes references. (NAL Call No.: DNAL 421 J822).

0348

Mushroom pests and how to control them by C.H. Popenoe . --.

Popenoe, C. H. Washington, D.C. : U.S. Dept. of Agriculture, 1925. 6 p. : ill. --. (NAL Call No.: DNAL Fiche S-70 no.789 1925).

0349

Organizing and using the Penn State IPM approach to mushroom pest management.

Wuest, P.J. Finley, R.J.; Rinker, D.L.; Napkil, A.; Royse, D.J.; Tetrault, R.; Snetsinger, R.J. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 105-115. ill. (NAL Call No.: DNAL SB353.P42).

0350

Oxamyl residues on eggplant.

Thompson, N.P. Guinivan, R.A.; Bardalaye, P.C.; Poe, S. s.l., The Society. Proceedings of the ... annual meeting of the Florida State Horticultural Society. 1980 (pub 1981). v. 93. p. 280-281. ill. 3 ref. (NAL Call No.: 81 F66).

0351

Parasitism of cabbage aphid and green peach aphid (Homoptera: Aphididae) on collards in relation to weed management.

EVETEX. Horn, D.J. College Park, Md. : Entomological Society of America. In Davis, Calif., cabbage aphids, *Brevicoryne brassicae* (L.), and green peach aphids, *Myzus persicae* (Sulzer), were sampled from collards planted October 1982 and March 1983 in replicated plots (3 by 7 m) where weeds were subjected to one of three treatments--mowed, tilled, or unmanaged. In the October planting, collards and weeds began growth simultaneously, and weeds had no apparent impact on collard growth or on colonization by either aphid species.

Parasitism of aphids by *Diaeretiella rapae*

(McIntosh) was significantly higher in plots containing unmanaged weeds only once (6 December), and during early November secondary parasitism, mostly by *Alloxysta fuscicornis* (Hartig), was greater in tilled and mowed plots (18-38%) than where weeds were unmanaged (0-5%). In the March planting, collards were planted among preexisting weeds; collard growth among weeds was retarded as was the development of aphid populations. Primary parasitism was negligible (as were aphids) in unmanaged weedy plots and greater in mowed (7.2%) than in tilled plots (3.6%). The overall impact of parasitism on aphid populations was minimal. Secondary parasitism (again mostly by *A. fuscicornis*) averaged 40.8% in tilled, 7.5% in mowed, and none in weedy plots. *Environmental entomology*. Apr 1988. v. 17 (2). p. 354-358. Includes references. (NAL Call No.: DNAL QL461.E532).

0352

Permethrin resistance in *Lycoriella mali* (Diptera: Sciaridae).

JEENAI. Brewer, K.K. Keil, C.B. Lanham, Md. : Entomological Society of America. Four colonies of *Lycoriella mali* (Fitch) collected from different mushroom farms in southeastern Pennsylvania and Delaware were examined for resistance to topically applied permethrin in laboratory studies. Low to moderate (8- to 47-fold at LD(50)) resistance was discovered in all four colonies compared with a reference strain not previously exposed to permethrin. Resistance at the LD(95) was from 34- to 67-fold. The LC(95) of three of the colonies was approximately equal to field rate for permethrin, whereas one colony's LC(95) was below the field rate. Slopes of the dose-mortality lines of the four colonies ranged from 0.82 to 1.31, suggesting a potential for higher levels of resistance in these populations with continued selection pressure. The large concentration of mushroom farms in the area, short generation time of *L. mali*, numerous applications of permethrin, and history of pesticide use are likely to have influenced the development of resistance to permethrin in this species. *Journal of economic entomology*. Feb 1989. v. 82 (1). p. 17-21. Includes references. (NAL Call No.: DNAL 421 J822).

0353

Pest control in commercial cole crop production.

Binning, L. K. Wyman, J. A.; Stevenson, W. R. Document available from: University of Wisconsin, Agricultural Bulletin Building, 1535 Observatory Drive, Madison, Wisconsin 53706 1983. Discusses how to protect cabbage, cauliflower, broccoli, and brussels sprouts produced by market gardeners. Includes insect, disease and weed control. 4 p. (NAL Call No.: Document available from source.).(NAL Call No.: A2357).

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0354

Role of the predator Hemerobius pacificus in a non-insecticide treated artichoke field.
Neuenschwander, P. Hagen, K.S. College Park, Md., Entomological Society of America. Environmental entomology. Oct 1980. v. 9 (5). p. 492-495. 13 ref. (NAL Call No.: QL461.E532).

0355

Sampling plan for asparagus aphid.
WUEXA. Wright, L.C. Cone, W.W. Pullman, Wash. : The Service. Extension bulletin - Washington State University, Cooperative Extension Service. Apr 1988. (1484). 13 p. ill. (NAL Call No.: DNAL 275.29 W27P).

0356

Sex pheromone offers promise for control of artichoke plume moth (*Platyptilia carduidactyla*).
Haynes, K.F. Birch, M.C.; Klun, J.A. Berkeley, Calif., The Station. California agriculture - California Agricultural Experiment Station. Jan/Feb 1981. v. 35 (1/2). p. 13-14. ill. (NAL Call No.: 100 C12CAG).

0357

Significant insect pests of the commercial mushroom.
Wetzel, H.A. Wuest, P.J.; Rinker, D.L.; Finley, R.J. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 35-39. ill. (NAL Call No.: DNAL SB353.P42).

0358

So much hangs in the balance: biological control and cassava.
Woge, J. Eugene, Or. : The Coalition. Journal of pesticide reform : a publication of the Northwest Coalition for Alternatives to Pesticides. Winter 1989. v. 8 (4). p. 21-22. ill., maps. Includes references. (NAL Call No.: DNAL SB950.2.A1J58).

0359

Southern armyworm (*Spodoptera eridania*) and black cutworm (*Agrotis ipsilon*) damage to cassava at different growth stages.
Pena, J.E. Waddill, V.H. College Park, Md., Entomological Society of America. Journal of economic entomology. June 1981. v. 74 (3). p. 271-275. ill. 7 ref. (NAL Call No.: 421 J822).

0360

Stability of three ureide insect chitin-synthesis inhibitors in mushroom compost determined by chemical and bioassay techniques (*Lycoriella mali*, major insect pest of commercial mushrooms).

Argauer, R.J. Cantelo, W.W. College Park, Md., Entomological Society of America. Journal of economic entomology. Oct 1980. v. 73 (5). p. 671-674. ill. 4 ref. (NAL Call No.: 421 J822).

0361

Translaminar and residual activity of avermectin B1 against *Plutella xylostella* (Lepidoptera: Plutellidae).
JEENAI. Abro, G.H. Dybas, R.A.; Green, A. St. J.; Wright, D.J. Lanham, Md. : Entomological Society of America. The translaminar activity of avermectin B1 (AVMB1; 1.8% wt/vol EC) against second instars of a susceptible laboratory strain of *Plutella xylostella* L. varied considerably with crop species; the LC₅₀ for AVMB1 was about 145 and 250 times lower on Chinese cabbage (cv. Pe Tsai) than on brussels-sprouts (cv. Winter Harvest) and cabbage (cv. Langed IJK4), respectively. Addition of emulsified safflower oil appeared to have little effect on the translaminar activity of AVMB1 on brussels-sprouts. Under greenhouse conditions, AVMB1 appeared to have between 50 and 100 times greater residual activity than cypermethrin on cabbage (cv. April) when tested against fourth instars of the laboratory strain and a field (Thailand) strain resistant to a number of insecticides. In the residue experiment, 96-h mortality data also suggested that the field strain was markedly less sensitive to cypermethrin and to a lesser extent to AVMB1 when compared with the laboratory strain. However, when mortality was assessed at eclosion (approximately 240 H), there was generally less difference between the two strains, particularly for AVMB1. Addition of emulsified safflower oil or Sunspray 6E oil extended the residual activity of AVMB1 against both strains. Journal of economic entomology. Apr 1989. v. 82 (2). p. 385-388. Includes references. (NAL Call No.: DNAL 421 J822).

0362

Weed, insect, and disease control guide: Asparagus; cucumbers, melons, pumpkins, squash; rhubarb. Commercial vegetable.
Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Outlines herbicide, insecticide and fungicide suggestions for asparagus, cucumbers, melons, pumpkins, squash and rhubarb. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 599).

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0363

Weed, insect, and disease control guide: beets, carrots, lettuce, onions parsnips, radishes, rutabagas, turnips, spinach.

Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A. ; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicides, insecticides and fungicide suggestions for beets, carrots, lettuce, onions, parsnips, radishes, rutabagas, turnips and spinach. 7 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 600).

0364

Weed, insect, and disease control guide: cabbage, broccoli, cauliflower, brussels sprouts.

Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L.& Commercial vegetable. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicide, insecticide and fungicide suggestions for cabbage, broccoli, cauliflower and brussels sprouts. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext.Folder 598).

0365

Weed, insect, and disease control guide: eggplant, peppers, tomatoes.

Waters, Luther Jr. Bodt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L.& Commercial vegetable. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicide, insecticide and fungicide suggestions for eggplants, tomatoes an peppers. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 597).

0366

Yield and plant growth responses of Mononychellus mite resistant and susceptible cassava cultivars under protected vs. infested conditions (Major food crop in the tropics).

Byrne, D.H. Guerrero, J.M.; Bellotti, A.C.; Gracen, V.E. Madison, Wis., Crop Science Society of America. Crop science. May/June 1982. v. 22 (3). p. 486-490. 2 p. ref. (NAL Call No.: 64.8 C883).

0367

Varietal differences in the resistance to Aphidae (*Aphis gossypii* Glover) injury in rape. KOREAN (USE FOR RELATED KOREAN LANGUAGES AND DIALECTS).

Kwon, B.S. Suwon, The Society. Han'guk Changmul Hakhoe chi. = Journal of the Korean Society of Crop Science. Dec 1979. v. 24 (4). p. 67-70. ill. 6 ref. (NAL Call No.: SB183.H35).

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0368

Control of *Ditylenchus dipsaci* in infected garlic seed cloves by nonfumigant nematicides.
JONEB. Roberts, P.A. Greathead, A.S. Raleigh, N.C. : Society of Nematologists. Journal of nematology. Jan 1986. v. 18 (1). p. 66-73. Includes 11 references. (NAL Call No.: DNAL QL391.N4J62).

0369

Diseases, weed molds, indicator molds, and abnormalities of the commercial mushroom.
Harvey, C.L. Wuest, P.J.; Schisler, L.C. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 19-33. (NAL Call No.: DNAL SB353.P42).

0370

Effect of an extract from saprozoic nematode-infested compost on the mycelial growth of *Agaricus brunnescens* (*Caenorhabditis elegans*, free-living nematode, leachate, mushroom, phytotoxicity).
Kaufman, T.D. Bloom, J.R.; Lukezic, F.L. Ames, Iowa : Society of Nematologists. Journal of nematology. Oct 1983. v. 15 (4). p. 567-571. Includes references. (NAL Call No.: QL391.N4J62).

0371

Effect of mushroom mycelium growth on population development of *Lycoriella mali*, nematodes, and mites in compost (Mushroom-infesting sciarid).
Cantelo, W.W. San Antonio, J.P. College Park, Md., Entomological Society of America. Environmental entomology. Feb 1982. v. 11 (1). p. 227-230. Includes 25 ref. (NAL Call No.: QL461.E532).

0372

Effect of organic amendments, nematicides and solar heating on root-knot nematodes infecting eggplant.
Stephan, Z.A. Michbas, A.H.; Shakir, I. Raleigh, N.C. : Crop Nematode Research & Control Project . International nematology network newsletter. Mar 1989. v. 6 (1). p. 34-35. Includes references. (NAL Call No.: DNAL SB998.N45I5).

0373

Insect and nematode control recommendations for asparagus, egg plant, okra, peppers, and sweet corn.
Toscano, N.C. (comp.). CA. Burton, V.; Radewald, J.; Thomason, I.; Toscano, N.; Johnson, D.; McCalley, N.; Stimmann, M. Berkeley, The Service. Leaflet - Division of Agricultural Sciences, University of California. California. University, Berkeley. Cooperative Extension Service. Dec 1979. Dec 1979. (21140). 8 p. ill. (NAL Call No.: S544.3.C2C3).

0374

Insect and nematode control recommendations for table beets, carrots, parsnips, sweet potatoes, and turnips.
Toscano, N.C. (comp.). CA. Burton, V.; Hart, W.; Johnson, D.; Radewald, J.; Thomason, I.; Toscano, N.; Lang, W.; Stimmann, M. Berkeley, The Service. Leaflet - Division of Agricultural Sciences, University of California. California. University, Berkeley. Cooperative Extension Service. Dec 1979. Dec 1979. (2750). 7 p. ill. (NAL Call No.: S544.3.C2C3).

0375

Meloidogyne incognita on society garlic and its control (*Tulbaghia violacea*, hot water treatment).
McSorley, R. McMillan, R.T. Jr.; Parrado, J.L. St. Paul, American Phytopathological Society. Plant disease. Feb 1984. v. 68 (2). p. 166-167. Includes references. (NAL Call No.: 1.9 P69P).

0376

Organizing and using the Penn State IPM approach to mushroom pest management.
Wuest, P.J. Finley, R.J.; Rinker, D.L.; Napkil, A.; Royse, D.J.; Tetrault, R.; Snetsinger, R.J. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 105-115. ill. (NAL Call No.: DNAL SB353.P42).

0377

Peak heat (for control of the mushroom nematode *Ditylenchus myceliophagus*): Is yours what you think it is?.
Moreton, B.D. John, M.E. London, Mushroom Growers' Association. The Mushroom journal. July 1979. July 1979. (79). p. 315-318. ill. (NAL Call No.: SB353.M8).

0378

**Protecting cabbage and cauliflower from attacks
by worms /by E.S. Tucker.**

Tucker, Elbert Stephen, 1867-1921. Baton Rouge,
La. : Agricultural Experiment Station of the
Louisiana State University and A. & M. College,
1915. Cover title. 16 p. : ill. ; 23 cm. (NAL
Call No.: DNAL 100 L93 (1) no. 154).

PLANT DISEASES - GENERAL

0379

Diseases, weed molds, indicator molds, and abnormalities of the commercial mushroom.
Harvey, C.L. Wuest, P.J.; Schisler, L.C. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 19-33. (NAL Call No.: DNAL SB353.P42).

0384

Market diseases of asparagus, onions, beans, peas, carrots, celery, and related vegetables by Marion A. Smith, Lacy P. McColloch, and Bernard A. Friedman . --. Smith, Marion A., 1897-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Research Service, Market Quality Research Division, 1966. iv, 65, 17 p. : ill. --. Bibliography: p. 56-65. (NAL Call No.: DNAL Fiche S-85 no.303).

0380

Disorders in cabbage, bunched broccoli, and cauliflower shipments to the New York market, 1972-1985.

PLDIDE. Ceponis, M.J. Cappellini, R.A.; Lightner, G.W. St. Paul, Minn. : American Phytopathological Society. Plant disease. Dec 1987. v. 71 (12). p. 1151-1154. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0385

Market diseases of beets, chicory, endive, escarole, globe artichokes, lettuce, rhubarb, spinach, and sweetpotatoes /H.E. Moline and W.J. Lipton.

Moline, Harold E. Lipton, Werner J., 1929-. Washington, D.C.? : U.S. Dept. of Agriculture, Agricultural Research Service : Supt. of Docs., U.S. G.P.O., distributor, 1987. v. 86 p. : col. ill. ; 22 cm. Includes bibliographies. (NAL Call No.: DNAL 1 Ag84Ah no. 155 1987).

0381

Growing cauliflower and broccoli.

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0386

Market diseases of beets, chicory, endive, escarole, globe artichokes, lettuce, rhubarb, spinach, and sweetpotatoes /by Glen B. Ramsey, B.A. Friedman and M.A. Smith.

Ramsey, Glen B. 1889-. Friedman, B. A. 1909-; Smith, M. A. 1897-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service, Marketing Research Division, 1959. "Supersedes Miscellaneous publication no. 541, Market diseases of fruits and vegetables: beets, endive, escarole, globe artichokes, lettuce, rhubarb, spinach, Swiss chard, and sweetpotatoes." ii, 42 p. : 19 plates (some col.) ; 23 cm. Bibliography: p. 35-42. (NAL Call No.: DNAL 1 Ag84Ah no.155).

0382

Integrated pest management for mushroom farming.

Wetzel, H.A. Wuest, P.J.; Snetsinger, R.; Royse, D.J.; Tetrault, R.C. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 61-67. ill. (NAL Call No.: DNAL SB353.P42).

0383

Market diseases of asparagus, onions, beans, peas, carrots, celery, and related vegetables / by Marion A. Smith, Lacy P. McColloch, and Bernard A. Friedman .

Smith, M. A. 1897-. McColloch, Lacy Porter, 1907-; Friedman, B. A. 1909-; Ramsey, Glen B. 1889-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Research Service, Market Quality Research Division, 1966. Revision of and supersedes Market diseases of fruits and vegetables: asparagus, onions, beans, peas, carrots, celery, and related vegetables, by G.B. Ramsey and J.S. Wiant, issued as U.S. Dept. of Agriculture. Miscellaneous publication no. 440. iv, 65 p. : 17 plates (part col.) ; 24 cm. Bibliography: p. 56-65. (NAL Call No.: DNAL 1 Ag84Ah no.303).

0387

Market diseases of cabbage, cauliflower, turnips, cucumbers, melons, and related crops / Glen B. Ramsey and M.A. Smith .

Ramsey, Glen B. 1889-. Smith, Marion Ashton. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service, Market Quality Research Division, 1961. 49 p., 24 p. of plates : ill. (some col.) ; 23 cm. Bibliography: p. 45-49. (NAL Call No.: DNAL 1 Ag84Ah no.184).

0388

Market diseases of cabbage, cauliflower, turnips, cucumbers, melons, and related cropsGlen B. Ramsey and M.A. Smith. --.

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0389

Market diseases of fruits and vegetables asparagus, onions, beans, peas, carrots, celery, and related vegetables /by Glen B. Ramsey and James S. Wiant.

Ramsey, Glen B. 1889-. Wiant, James S. 1900-. Washington, D.C. : U.S. Dept. of Agriculture, 1941. Cover title.~ "September 1941.". 70 p., 15 leaves of plates : ill. (some col.) ; 23 cm. Bibliography: p. 60-70. (NAL Call No.: DNAL 1 Ag84M no.440).

0390

Market diseases of fruits and vegetables beets, endive, escarole, globe artichokes, lettuce, rhubarb, spinach, Swiss chard and sweetpotatoes /by Glen B. Ramsey and James S. Wiant.

Ramsey, Glen B. 1889-. Wiant, James S. 1900-. Washington, D.C. : U.S. Dept. of Agriculture, 1944. Caption title.~ "October 1944.". 40 p., 13 leaves of plates : ill. (some col.) ; 23 cm. Bibliography: p. 33-40. (NAL Call No.: DNAL 1 Ag84M no.541).

0391

Market diseases of tomatoes, peppers, and eggplants /by Glen B. Ramsey, James S. Wiant and Lacy P. McColloch.

Ramsey, Glen B. 1889-. Wiant, James S. 1900-. McColloch, Lacy Porter, 1907-. Washington, D.C. : U.S. Dept. of Agriculture, 1952. "Extensive revision of and supersedes Miscellaneous publication no. 121.". 54 p., 15 p. of plates (some col.) ; 24 cm. Bibliography: p. 50-54. (NAL Call No.: DNAL 1 Ag84Ah no.28).

0392

Market diseases of tomatoes, peppers, and eggplants / (by Lacy P. McColloch, Harold T. Cook, and William R. Wright.). -.

McColloch, Lacy P. Cook, Harold T.; Wright, William R. (Washington, D.C.?) U.S. Dept. of Agriculture, Agricultural Research Service 1982. Cover title ~Revision of: "Market diseases of tomatoes, peppers, and eggplants" by Glen B. Ramsey, the late James S. Wiant, and Lacy P. McColloch. ii, 74 p., (16) p. of plates : ill. (some col.) ; 24 cm. --. Bibliography: p. 66-74. (NAL Call No.: 1 Ag84Ah no.28 1982).

0393

A study of horseradish diseases and their control /by K.J. Kadow and H.W. Anderson. Kadow, K. J. 1908-. Anderson, H. W. 1885-. Urbana, Ill. : University of Illinois Agricultural Experiment Station, 1940. Cover title. p. 529 -583 : ill. ; 23 cm. Bibliography: p. 578-583. (NAL Call No.: DNAL 100 I16S no.469).

0394

Weed, insect, and disease control guide: Asparagus; cucumbers, melons, pumpkins, squash; rhubarb. Commercial vegetable. Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Outlines herbicide, insecticide and fungicide suggestions for asparagus, cucumbers, melons, pumpkins, squash and rhubarb. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 599).

0395

Weed, insect, and disease control guide: beets, carrots, lettuce, onions parsnips, radishes, rutabagas, turnips, spinach.

Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A. ; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicides, insecticides and fungicide suggestions for beets, carrots, lettuce, onions, parsnips, radishes, rutabagas, turnips and spinach. 7 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 600).

0396

Weed, insect, and disease control guide: cabbage, broccoli, cauliflower, brussels sprouts.

Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. & Commercial vegetable. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicide, insecticide and fungicide suggestions for cabbage, broccoli, cauliflower and brussels sprouts. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 598).

(PLANT DISEASES - GENERAL)

0397

Weed, insect, and disease control guide:

eggplant, peppers, tomatoes.

Waters, Luther Jr. Bodt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. & Commercial vegetable. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicide, insecticide and fungicide suggestions for eggplants, tomatoes an peppers. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 597).

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0398

Analysis of an effective antibiotic (chaetomacin) isolated from a thermophilic *Bacillus* sp. against olive green mold (In mushroom beds).
Tautorus, T.E. Townsley, P.M. Washington, D.C. : American Society for Microbiology. Applied and environmental microbiology. Apr 1984. v. 47 (4). p. 775-779. ill. Includes references. (NAL Call No.: 448.3 AP5).

0399

Asparagus plant named Jersey Knight.
Ellison, J.H. Kinel斯基, J.J. Washington, D.C. : The Office. A male asparagus plant having tolerance to rust (*Puccinia asparagi*), root rot (*Fusarium oxysporum*), crown rot (*Fusarium moniliforme*), with high quality spears produced and high yield with spear tips remaining tight even in hot weather and when the spear is long. Plant patent - United States Patent and Trademark Office. Feb 21, 1989. (6624). 2 p. plates. (NAL Call No.: DNAL 156.65 P69).

0400

Asparagus plant named Linda.
Ellison, J.H. Kinel斯基, J.J. Washington, D.C. : The Office. A female asparagus plant having rust and *Fusarium* resistance, vigorous in growth, high quality spear production, all characteristics being transmitted to progeny. Plant patent - United States Patent and Trademark Office. Feb 21, 1989. (6622). 1 p. plates. (NAL Call No.: DNAL 156.65 P69).

0401

Asparagus rust control in Michigan, 1985.
FNETD. Stephens, C.T. Stebbins, T.C. s.l. : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1986. v. 41. p. 46-47. (NAL Call No.: DNAI 464.9 AM31R).

0402

Asparagus spray schedules for *Cercospora* leafspot, 1984-1985.
FNETD. Averre, C.W. Jones, T.L.; Jenkins, S.F.; Cooperman, C.J. s.l. : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1986. v. 41. p. 46. (NAL Call No.: DNAL 464.9 AM31R).

0403

Bacterial basal rot of straw mushrooms.
JALUPA. Hepperly, P.R. Ramos-Davila, E. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. The Journal of agriculture of the University of Puerto Rico. July 1986. v. 70 (3). p. 219-221. Includes references. (NAL Call No.: DNAL 8 P832J).

0404

Benomyl in acetone eradicates *Fusarium moniliforme* and *Fusarium oxysporum* from asparagus seed (Fungi, root, stem, and crown rots).
Damicone, J.P. Cooley, D.R.; Manning, W.J. St. Paul, Minn., American Phytopathological Society. Plant disease. Nov 1981. v. 65 (11). p. 892-893. (NAL Call No.: 1.9 P69P).

0405

Bioassay of fungicides against *Sclerotium rolfsii* Sacc. (Eggplant, aster, Vinca).
Sridhar, T.S. Bombay, Colour Publications. Pesticides. May 1979. v. 13 (5). p. 52. ill. 2 ref. (NAL Call No.: SB951.P43).

0406

Biological control of *Verticillium* wilt of eggplant in the field.
PLDRA. Marois, J.J. Johnston, S.A.; Dunn, M.T.; Papavizas, G.C. St. Paul, Minn. : American Phytopathological Society. Plant disease. Dec 1982. v. 66 (12). p. 1166-1168. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0407

Chemical control of black rot (caused by *Xanthomonas campestris*) of cauliflower.
Shukla, P. Singh, R.P.; Sumer, R. Bombay, Colour Publications. Pesticides. May 1979. v. 13 (5). p. 51. 3 ref. (NAL Call No.: SB951.P43).

0408

Comparison of technique for eliminating contaminants from asparagus seeds.
HJHSA. Elmer, W.H. Stephens, C.T. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1988. v. 23 (6). p. 1031-1032. Includes references. (NAL Call No.: DNAL SB1.H6).

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0409

Control of brown blotch of the cultivated mushroom, 1979 (Mushroom (*Agaricus bisporus* 'PSU 310), brown blotch (*Pseudomonas tolaasi*)). Royse, D.J. Wuest, P.J. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 75. (NAL Call No.: 464.9 AM31R).

0410

Control of downy mildew of chives, 1980 (Chives (*Allium schoenoprasum*), downy mildew; *Peronospora destructur*). Reifschneider, F.J.B. Matsuura, S.; Militao, J. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 58. (NAL Call No.: 464.9 AM31R).

0411

Control of eggplant yellows /S.E. Jones. Jones, S. E. 1905-. College Station, Tex. : Texas Agricultural Experiment Station, 1942. Cover title. - "November 1942." . 17 p. : ill. ; 23 cm. Bibliography: p. 17. (NAL Call No.: DNAL 100 T31S (1) no.623).

0412

Control of *Phytophthora* rot with metalaxyl in established asparagus. PLDRA. Falloon, P.G. Mullen, R.J.; Benson, B.L.; Grogan, R.G. St. Paul, Minn. : American Phytopathological Society. Plant disease. Nov 1985. . v. 69 (11). p. 921-923. Includes 7 references. (NAL Call No.: DNAL 1.9 P69P).

0413

The disappearance of benomyl (to control *Mycogone perniciosa*) from mushroom casing. Fletcher, J.T. Connolly, G.; Mountfield, E.I.; Jacobs, L. London, Association of Applied Biologists. Annals of applied biology. May 1980. v. 95 (1). p. 73-82. ill. 18 ref. (NAL Call No.: 442.8 AN72).

0414

Effects of allelopathic substances produced by asparagus on incidence and severity of asparagus decline due to *Fusarium* crown rot. Hartung, A.C. JCECD. Stephens, C.T. New York : Plenum Press. Journal of chemical ecology. Aug 1983. v. 9 (8). p. 1163-1174. ill. Includes references. (NAL Call No.: QD415.A1J6).

0415

Effects of wounding and wetting duration on infection of asparagus by *Stemphylium vesicarium*. PLDRA. Johnson, D.A. Lunden, J.D. St. Paul, Minn. : American Phytopathological Society. Plant disease. May 1986. v. 70 (5). p. 419-420. Includes 5 references. (NAL Call No.: DNAL 1.9 P69P).

0416

Elicitation of diacetylenic compounds in suspension cultured cells of eggplant. PLPRA. Imoto, S. Ohta, Y. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1988. v. 86 (1). p. 176-181. Includes references. (NAL Call No.: DNAL 450 P69Z).

0417

Etiology of parsley damping-off and influence of temperature on disease development. PLDRA. Hershman, D.E. Varney, E.H.; Johnston, S.A. St. Paul, Minn. : American Phytopathological Society. Plant disease. Oct 1986. v. 70 (10). p. 927-930. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0418

Etiology of *Stemphylium* leaf blight of onion. PHYTAJ. Shishkoff, N. Lorbeer, J.W. St. Paul, Minn. : American Phytopathological Society. A species of *Stemphylium* was isolated from lesions on leaves of onion plants grown commercially on organic soil in New York in 1985 and identified as *Stemphylium vesicarium*. In controlled inoculations the fungus caused lesions on leaves of all ages of onion plants, especially on older leaves. Rubbing leaves of greenhouse-grown onion plants with bleached, nonabsorbent cotton to damage the cuticle increased the number of lesions per leaf. The number of lesions per centimeter of leaf length increased the longer plants were incubated in a mist chamber after inoculation with the pathogen. Lesions similar to those produced by the New York isolates were formed on onion leaves inoculated with isolates of *S. vesicarium* from asparagus in Washington and from onion in Texas. Phytopathology. Mar 1989. v. 79 (3). p. 301-304. Includes references. (NAL Call No.: DNAL 464.8 P56).

0419

Evaluation of fungicides for control of *Cercospora* leaf spot on asparagus, 1982 (*Cercospora asparagi*, *Asparagus officinalis*). Averre, C.W. FNEDT. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 89. (NAL Call No.: 464.9 AM31R).

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0420

Evaluation of fungicides for control of rust and purple-blotch in garlic, 1981 (Puccinia allii, Alternaria porri, Allium sativum). Lopes, C.A. FNEDT. Reifs Schneider, F.J.B. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 100-101. (NAL Call No.: 464.9 AM31R).

0421

Evaluation of fungicides for the control of Sclerotinia blight of eggplant, 1978-79 (Eggplant (*Solanum melongena* 'Pusa purple long'), blight; Sclerotinia (*Whetzelinia*) sclerotiorum).

Vishwakarma, S.N. Sitaramaiah, K.; Singh, R.S. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 61-62. (NAL Call No.: 464.9 AM31R).

0422

Evaluation of fungicides for the control of Sclerotinia blight of eggplant, 1978-79 (Eggplant (*Solanum melongena* 'Pusa Purple Long'), blight; Sclerotinia (*Whetzelinia*) sclerotiorum).

Vishwakarma, S.N. Sitaramaiah, K.; Singh, R.S. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 69. (NAL Call No.: 464.9 AM31R).

0423

Frequency and pathogenicity of *Fusarium* spp. isolated from first-year asparagus grown from transplants.

PLDIDE. Damcone, J.P. Manning, W.J. St. Paul, Minn. : American Phytopathological Society. Plant disease. May 1985. v. 69 (5). p. 413-416. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0424

Fungicide control of light leaf spot of cauliflower, 1979 (Cauliflower (*Brassica oleracea* var. *botrytis*), light leaf spot; *Pyrenopeziza brassicae*, crop was transplanted on August 3).

Cheah, L.H. Corbin, J.B.; Hartill, W.F.T. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 64. (NAL Call No.: 464.9 AM31R).

0425

Fungicide control of light leaf spot of cauliflower, 1979 (Cauliflower (*Brassica oleracea* var. *botrytis*), light leaf spot; *Pyrenopeziza brassicae*, crop was transplanted on January 30).

Cheah, L.H. Corbin, J.B.; Hartill, W.F.T. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 64. (NAL Call No.: 464.9 AM31R).

0426

Furanocoumarin phytoalexins, trichothecene toxins, and infection of *Pastinaca sativa* by *Fusarium sporotrichioides*.

PHYTAJ. Desjardins, A.E. Spencer, G.F.; Plattner, R.D.; Beremand, M.N. St. Paul, Minn. : American Phytopathological Society. Many plant pathogenic fusaria produce trichothecenes, which are potent phytotoxins and inhibitors of protein synthesis in eukaryotes. In this study we show that a wild-type, trichothecene-producing strain of *F. sporotrichioides*, NRRL 3299, is pathogenic on *Pastinaca sativa* (parsnip) roots and produces T-2 toxin in planta. Parsnip roots infected with this strain also accumulate high levels of fungitoxic furanocoumarins, mainly xanthotoxin and angelicin. Analysis of serial sections of infected roots showed that furanocoumarin concentrations decrease sharply at the infection boundary to levels apparently insufficient to completely block fungal growth or trichothecene production. The involvement of trichothecenes in pathogenesis was investigated by using three previously isolated, complementary mutants of NRRL 3299, blocked at different steps in T-2 toxin biosynthesis. T-2 toxin production is restored when these mutants are grown together pairwise and each mutant accumulates different end products. In this study the ability of these mutants to infect parsnips correlates with their ability to produce certain trichothecenes. Thus, the mutant that accumulates 4,15-diacetoxyescirpenol, a trichothecene nearly as toxic as T-2 toxin, is as pathogenic as the wild-type parent. In contrast, neither the mutant that accumulates the less toxic calonectrin analogues nor the mutant that accumulates the nontoxic trichothecene precursor, trichodiene, is pathogenic. Furthermore, coinoculation of these latter two mutants on parsnip roots results in infection. Phytopathology. Feb 1989. v. 79 (2). p. 170-175. ill. Includes references. (NAL Call No.: DNAL 464.8 P56).

0427

Further experience in asparagus rust control /by Ralph E. Smith.

Smith, Ralph E. 1874-1953. Berkeley, Cal. : Agricultural Experiment Station, 1906. Cover title. 21 p. : ill. ; 23 cm. (NAL Call No.: DNAL 100 C12S no. 172).

(PLANT DISEASES - FUNGAL)

0428

An in vitro assay to evaluate sources of resistance in Asparagus spp. to Fusarium crown and root rot.

PLDIDE. Stephens, C.T. Elmer, W.H. St. Paul, Minn. : American Phytopathological Society. Plant disease. Apr 1988. v. 72 (4). p. 334-337. illl. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0429

Influence of management practices on severity of stem and crown rot, incidence of asparagus miner, and yield of asparagus grown from transplants.

PLDRA. Damicon, J.P. Manning, W.J.; Ferro, D.N. St. Paul, Minn. : American Phytopathological Society. Plant disease. Jan 1987. v. 71 (1). p. 81-84. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0430

Inhibitory activity of asparagus root tissue and extracts on asparagus seedlings.

JOSHB. Hartung, A.C. Putnam, A.R.; Stephens, C.T. Alexandria, Va. : The Society. Asparagus (*Asparagus officinalis L.*) root tissue and root extracts were used to investigate the previously reported release of toxic chemicals from senescing root tissue. Greenhouse studies showed that the severity of crown or root rot of asparagus seedlings increased in direct proportion to increased amounts of dried root tissue incorporated into soil with either *F. oxysporum f. sp. asparagi*, *F. moniliforme*, or a combination of these two pathogens. When excised asparagus roots were treated with increasing concentrations of water extract of dried asparagus root tissues, electrolyte efflux increased, peroxidase activity decreased linearly, and respiration decreased. Active components in the extracts were heat-stable. Our data suggest allelochemicals of asparagus may have direct physiological and biochemical effects on asparagus plants that predisposes them to fusarium diseases. Journal of the American Society for Horticultural Science. Jan 1989. v. 114 (1). p. 144-148. Includes references. (NAL Call No.: DNAL 81 S012).

0431

Interaction of asparagus root filtrate with *Fusarium oxysporum f.sp. asparagi*.

JOSHB. Peirce, L.C. Colby, L.W. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1987. v. 112 (1). p. 35-40. Includes 15 references. (NAL Call No.: DNAL 81 S012).

0432

Internal mycoflora of Chinese straw mushroom basidiocarp--in vitro effects on mushroom growth.

JAUPA. Rivera-Vargas, L.I. Hepperly, P.R. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. The Journal of agriculture of the University of Puerto Rico. Apr 1987. v. 71 (2). p. 159-164. Includes references. (NAL Call No.: DNAL 8 P832J).

0433

An investigation of asparagus rust in Illinois its causal agent and its control /by Robert P. Kahn ... et al. .

Kahn, Robert P. Urbana, Ill. : University of Illinois Agricultural Experiment Station, 1952. Cover title. 56 p. : illl. ; 23 cm. Bibliography: p. 54-56. (NAL Call No.: DNAL 100 I16S no.559).

0434

Laboratory evaluation of pink root and fusarium basal rot resistance in garlic.

PLDRA. Rengwalska, M.M. Simon, P.W. St. Paul, Minn. : American Phytopathological Society. Plant disease. July 1986. v. 70 (7). p. 670-672. Includes 27 references. (NAL Call No.: DNAL 1.9 P69P).

0435

New fungicide and fungicide combinations for gray snow mold suppression on putting greens, 1981 (*Typhula incarnata* on creeping bentgrass, *Agrostis palustris*).

Marion, D.F. FNETD. Badger, P.; Value, P. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 192. (NAL Call No.: 464.9 AM31R).

0436

New fungicide evaluations on crucifers, 1979 (*Cabbage* (*Brassica oleracea* var. *capitata* 'Wisconsin', 'Golden Acre'), *cauliflower* (*Brassica oleracea* var. *botrytis* 'Snow Ball'), *downy mildew*; *Peronospora parasitica*).

Abdel-Rahman, M. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 62. (NAL Call No.: 464.9 AM31R).

0437

Phytotoxicity of fungicide combinations incorporated into peat-lite mix, 1980 (*Celosia cristata* (*Plumosa* sp.) 'Fairy Fountains'), eggplant (*Solanum melongena* var. *esculentum* 'Special Hibush'), *Impatiens* (*Impatiens wallerana* 'Extra Dwarf White Baby'), tomato (*Lycopersicon esculentum* 'Fireball'), *Zinnia* (*Zinnia elegans* 'Cupid'), damping-off; *Pythium*, *Rhizoctonia*, etc.).
 Daughtrey, M.L. Wells, S.L. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 124. (NAL Call No.: 464.9 AM31R).

0438

Purple spot and Stemphylium leaf spot of asparagus (*Stemphylium vesicarium*, removal of dead fern during winter as partial control, California).
 Falloon, P.G. Falloon, L.M.; Grogan, R.G. Berkeley : The Station. California agriculture - California Agricultural Experiment Station. July/Aug 1984. v. 38 (7/8). p. 21. ill. (NAL Call No.: 100 C12CAG).

0439

Rates of fungicide application for control of light leaf spot cauliflower, 1980 (*Cauliflower* (*Brassica oleracea* var. *botrytis* 'Phenomenal Y404'), light leaf spot; *Pyrenopeziza brassicae*).
 Cheah, L.H. Hartill, W.F.T.; Corbin, J.B. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 57. (NAL Call No.: 464.9 AM31R).

0440

Timing of benomyl applications for control of light leaf spot of cauliflower, 1980 (*Cauliflower* (*Brassica oleracea* vr. *botrytis* 'Phenomenal Y404'), light leaf spot; *Pyrenopeziza brassicae*).
 Cheah, L.H. Hartill, W.F.T.; Corbin, J.B. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 57. (NAL Call No.: 464.9 AM31R).

PLANT DISEASES - BACTERIAL

0441

Bacterial blight of cassava (*Manihot esculenta* Crantz in Colombia : Etiology, epidemiology, and control / by Carlos Lozano. - . Lozano, Carlos, 1937-. 1972. Thesis (Ph.D.)--University of Wisconsin, 1972. Photocopy of typescript. Ann Arbor: University Microfilms, 1972. xi, 114 leaves ; 21 cm. Bibliography: leaves 106-114. (NAL Call No.: DISS 72-27,339).

0442

Cassava bacterial blight: a manageable disease. PLDRA. Lozano, J.C. St. Paul, Minn. : American Phytopathological Society. Plant disease. Dec 1986. v. 70 (12). p. 1089-1093. ill. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0443

Effect of inoculum dose and preparation, strain variation, and plant growth conditions on the eggplant assay for bacterial ring rot. APOUA. Bishop, A.L. Slack, S.A. Orono, Me. : Potato Association of America. American potato journal. May 1987. v. 64 (5). p. 227-234. Includes references. (NAL Call No.: DNAL 75.8 P842).

0444

Effect of mosaic viruses on infection of horseradish by *Spiroplasma citri* (*Armoracia rusticana*, brittle root disease). Fletcher, J. Schultz, G.A.; Eastman, C.E. St. Paul, Minn. : American Phytopathological Society. Plant disease. July 1984. v. 68 (7). p. 565-567. Includes references. (NAL Call No.: 1.9 P69P).

0445

Induction of defense responses in cultured parsley cells by plant cell wall fragments. PLPFA. Davis, K.R. Hahlbrock, K. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Aug 1987. v. 84 (4). p. 1286-1290. Includes references. (NAL Call No.: DNAL 450 P692).

0446

Mushroom brown blotch (caused by *Pseudomonas tolaasii*): effects of chlorinated water on disease intensity and bacterial populations in casing soil and on pilei. Royse, D.J. Wuest, P.J. St. Paul, Minn., American Phytopathological Society. Phytopathology. Sept 1980. v. 70 (9). p. 902-905. 18 ref. (NAL Call No.: 464.8 P56).

PLANT DISEASES - VIRAL

0447

Association of asparagus virus II with pollen from infected asparagus (*Asparagus officinalis*).

PLDIDE. Evans, T.A. Stephens, C.T. St. Paul, Minn. : American Phytopathological Society. Plant disease. Mar 1988. v. 72 (3). p. 195-198. ill. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0448

Early effects of viruses on the growth and productivity of asparagus plants.

Yang, H.J. Alexandria, Va., American Society for Horticultural Science. HortScience. Dec 1979. v. 14 (6). p. 734-735. ill. 10 ref. (NAL Call No.: SB1.H6).

0449

The effect of limited proteolysis on the antigenic stability of cauliflower mosaic virus.

Du Plessis, D.H. Wechmar, M.B. New York, Academic Press. Virology. Nov 1980. v. 107 (1). p. 298-301. ill. 14 ref. (NAL Call No.: 448.8 V81).

0450

Effect of *Phytophthora megasperma* var. *sojae* on yield of *Asparagus officinalis*.

PLDRA. Falloon, P.G. Falloon, L.M.; Benson, B.L.; Grogan, R.G. St. Paul, Minn. : American Phytopathological Society. Plant disease. Jan 1986. v. 70 (1). p. 15-19. Includes 15 references. (NAL Call No.: DNAL 1.9 P69P).

0451

Effect of Turnip Mosaic Virus infection on the mineral composition of rutabaga.

CSOSA2. Shattuck, V.I. New York, N.Y. : Marcel Dekker. Communications in soil science and plant analysis. Nov 1987. v. 18 (11). p. 1269-1279. Includes references. (NAL Call No.: DNAL S590.C63).

0452

Effects of cassava mosaic disease on certain leaf parameters of field-grown cassava clones (*Manihot esculenta*, chlorophyll content).

Ayanru, D.K.G. Sharma, V.C. St. Paul, Minn., American Phytopathological Society. Phytopathology. Aug 1982. v. 72 (8). p. 1057-1059. 16 ref. (NAL Call No.: 464.8 P56).

0453

Effects of magnesium on tobacco mosaic virus-infected eggplants.

Seaker, E.M. Bergman, E.L.; Romaine, C.P. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. Jan 1982. v. 107 (1). p. 162-166. Includes 22 ref. (NAL Call No.: 81 S012).

0454

The expression, localization, and effect of a human interferon in plants.

VIRLA. De Zoeten, G.A. Penswick, J.R.; Horisberger, M.A.; Ahl, P.; Schultze, M.; Hohn, T. Duluth, Minn. : Academic Press. Virology. Sept 1989. v. 172 (1). p. 213-222. ill. Includes references. (NAL Call No.: DNAL 448.8 V81).

0455

Host range control of cauliflower mosaic virus.

VIRLA. Schoelz, J.E. Shepherd, R.J. Duluth, Minn. : Academic Press. Virology. Jan 1988. v. 162 (1). p. 30-37. ill. Includes references. (NAL Call No.: DNAL 448.8 V81).

0456

Host response to cauliflower mosaic virus (CaMV) in solanaceous plants is determined by a 496 bp DNA sequence within gene VI.

Schoelz, J.E. Shepherd, R.J.; Daubert, S.D. New York, N.Y. : Alan R. Liss. UCLA symposia on molecular and cellular biology. In the series analytic: Molecular Strategies for Crop Protection / edited by Charles J. Arntzen and Clarence Ryan. Proceedings of a Symposium held Mar 30-Apr 6, 1986, Steamboat Springs, Colorado. 1987. v. 48. p. 253-265. ill. Includes references. (NAL Call No.: DNAL QH506.U34).

0457

La France disease of the cultivated mushroom.

Schisler, L.C. Romaine, C.P. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production editor, Glenn D. Bengtson. p. 69-75. ill. (NAL Call No.: DNAL SB353.P42).

(PLANT DISEASES - VIRAL)

0458

Methods for the enrichment of desired B-cell populations before anti-cauliflower mosaic virus hybridoma formation.
PHYTAJ. George, R.A. Converse, R.H. St. Paul, Minn. : American Phytopathological Society. Relative to a standard procedure and adjusted to uniform population sizes, immune complex masking, solid-phase immunoabsorption, and complement-mediated cytotoxicity used before murine hybridoma formation reduced by 49, 80, and 77%, respectively, the undesired anti-healthy Chinese cabbage (HCC) clones produced during studies on the production of anti-cauliflower mosaic virus (CaMV) monoclonal antibodies by hybridoma formation made from spleen cells from mice immunized with partially purified preparations of CaMV from infected Chinese cabbage leaves. These reductions led to 49, 72, and 54% increases, respectively, in the number of anti-CaMV clones found during screening. Analysis of the murine splenocyte populations by plaque-forming cell assay showed that these procedures resulted in reductions of anti-HCC B-cell populations of 49% for immune complex masking, 80% for solid-phase immunoabsorption, and 77% for complement-mediated cytotoxicity, compared to levels found by using a standard fusion procedure, thus enriching the level of desired anti-CaMV B cells in the resulting suspensions. *Phytopathology*. Dec 1988. v. 78 (12,pt.2). p. 1631-1636. Includes references. (NAL Call No.: DNAL 464.8 P56).

0459

The replication cycle of cauliflower mosaic virus in relation to other retrovirus elements, current perspectives.

Bonneville, J.M. Fuetterer, J.; Gordon, K.; Hohn, T.; Martinez-Izquierdo, J.; Pfeiffer, P.; Pietrzak, M. New York, N.Y. : Alan R. Liss. UCLA symposia on molecular and cellular biology. In the series analytic: Molecular Strategies for Crop Protection / edited by Charles J. Arntzen and Clarence Ryan. Proceedings of a Symposium held Mar 30-Apr 6, 1986, Steamboat Springs, Colorado. 1987. v. 48. p. 267-293. 111. Includes references. (NAL Call No.: DNAL QH506.U34).

0460

Virus disease of the cultivated mushroom (*Agaricus bisporus*) transmitted by contaminated soil.

Deahl, K. AR-BARC. St. Paul, Minn., American Phytopathological Society. *Phytopathology*. July 1980. v. 70 (7). p. 688. (NAL Call No.: 464.8 P56).

PLANT DISEASES - PHYSIOLOGICAL

0461

Allelopathic substances in asparagus roots: extraction, characterization, and biological activity.

JOSH B. Hazebroek, J.P. Garrison, S.A.; Gianfagna, T. Alexandria, Va. : The Society. Aqueous extracts of asparagus (*Asparagus officinalis L.*) roots inhibited seed germination in tomato and lettuce, but not in cucumber. The extracts reduced hypocotyl growth in lettuce, shoot growth in asparagus, and inhibited radicle elongation in barley, lettuce, and asparagus. Seedling growth in tomato and two cultivars of wheat were not affected. Inhibition was concentration-dependent. Radicle growth in 'Grand Rapids' lettuce was sensitive to an extract concentration as low as 0.05 g dry root tissue/100 ml H₂O. Asparagus radicles were more sensitive than asparagus shoots. In one experiment, phytotoxicity of crude extract was not altered by autoclaving. Aqueous root extracts of *A. racemosus* Willd. also inhibited germination and radicle growth in 'Grand Rapids' lettuce. A crude extract was purified by solvent partitioning, and charcoal adsorption, cation exchange, and thin-layer chromatography (TLC). A band from the TLC was found to fluoresce under ultraviolet light, react with phenolic-sensitive localization reagents, and inhibit the growth of lettuce and asparagus radicles. Journal of the American Society for Horticultural Science. Jan 1989. v. 114 (1). p. 152-158. Includes references. (NAL Call No.: DNAL 81 S012).

editor, Glenn D. Bengtson. p. 19-33. (NAL Call No.: DNAL SB353.P42).

0465

Effect of Turnip Mosaic Virus infection on the mineral composition of rutabaga.

CSOSA2. Shattuck, V.I. New York, N.Y. : Marcel Dekker. Communications in soil science and plant analysis. Nov 1987. v. 18 (11). p. 1269-1279. Includes references. (NAL Call No.: DNAL S590.C63).

0466

Inhibitory activity of asparagus root tissue and extracts on asparagus seedlings.

JOSH B. Hartung, A.C. Putnam, A.R.; Stephens, C.T. Alexandria, Va. : The Society. Asparagus (*Asparagus officinalis L.*) root tissue and root extracts were used to investigate the previously reported release of toxic chemicals from senescing root tissue. Greenhouse studies showed that the severity of crown or root rot of asparagus seedlings increased in direct proportion to increased amounts of dried root tissue incorporated into soil with either *F. oxysporum* f. sp. *asparagi*, *F. moniliforme*, or a combination of these two pathogens. When excised asparagus roots were treated with increasing concentrations of water extract of dried asparagus root tissues, electrolyte efflux increased, peroxidase activity decreased linearly, and respiration decreased. Active components in the extracts were heat-stable. Our data suggest allelochemicals of asparagus may have direct physiological and biochemical effects on asparagus plants that predisposes them to fusarium diseases. Journal of the American Society for Horticultural Science. Jan 1989. v. 114 (1). p. 144-148. Includes references. (NAL Call No.: DNAL 81 S012).

0462

Blossom end rot of tomatoes, peppers, and eggplant--its cause and how to prevent it.

Johnson, W.B. New Brunswick, N.J. : The Service. FS - Cooperative Extension Service, Cook College. 1984. (011). 2 p. (NAL Call No.: DNAL S544.3.N5F7).

0463

Daminozide control of globe artichoke flower head atrophy (Growth retardants, malformation, Italy).

Magnifico, V. Fortunato, I.M.; Palma, E. de. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1984. v. 19 (5). p. 667-669. ill. Includes 12 references. (NAL Call No.: SB1.H6).

0467

Micronutrient deficiencies and toxicities of cassava plants grown in nutrient solutions. I. Critical tissue concentrations (*Manihot esculenta*).

Howeler, R.H. Edwards, D.G.; Asher, C.J. New York, N.Y., Marcel Dekker. Journal of plant nutrition. 1982. v. 5 (8). p. 1059-1076. 27 ref. (NAL Call No.: QK867.J67).

0464

Diseases, weed molds, indicator molds, and abnormalities of the commercial mushroom.

Harvey, C.L. Wuest, P.J.; Schisler, L.C. University Park, PA : Pennsylvania State University, College of Agriculture, c1982. Penn State handbook for commercial mushroom growers : a compendium of scientific and technical information useful to mushroom farmers / science editor, Paul J. Wuest ; production

MISCELLANEOUS PLANT DISORDERS

0468

Allelopathic effects of soil incorporated asparagus roots on lettuce, tomato, and asparagus seedling emergence.
HJHSA. Shafer, W.E. Garrison, S.A. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1986. v. 21 (1, section 1). p. 82-84. Includes references. (NAL Call No.: DNAL SB1.H6).

0469

Chloramben for weed control on muck-grown lettuce, *Lactuca sativa*, and endive, *Cichorium endivia*.
WEETE9. Gorski, S.F. Reiners, S.; Hassell, R. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. July 1988. v. 2 (3). p. 262-264. Includes references. (NAL Call No.: DNAL SB610.W39).

0470

Direct analysis of carbofuran (insecticide) and 3-hydroxycarbofuran in rape plants by reverse-phase high-pressure liquid chromatography (Uptake).
Lee, Y.W. Westcott, N.D. Washington, D.C., American Chemical Society. Journal of agricultural and food chemistry. July/Aug 1980. v. 28 (4). p. 719-722. ill. 9 ref. (NAL Call No.: 381 J8223).

0471

Effect of an extract from saprozoic nematode-infested compost on the mycelial growth of *Agaricus brunnescens* (*Caenorhabditis elegans*, free-living nematode, leachate, mushroom, phytotoxicity).
Kaufman, T.D. Bloom, J.R.; Lukezic, F.L. Ames, Iowa : Society of Nematologists. Journal of nematology. Oct 1983. v. 15 (4). p. 567-571. Includes references. (NAL Call No.: QL391.N4J62).

0472

Effect of excess boron on broccoli, cauliflower, and radish.
JOSH. Francois, L.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 494-498. Includes references. (NAL Call No.: DNAL 81 S012).

0473

The effects of trivalent chromium from tannery wastes on plants (Tests with geranium and rhubarb).
Shivas, S.A.J. Easton, Pa., The Association. The Journal of the American Leather Chemists Association. Aug 1980. v. 75 (8). p. 288-299. 18 ref. (NAL Call No.: 303.9 AM32).

0474

Influence of application time on clomazone activity in no-till soybeans, *Glycine max*.
WEESA6. Werling, V.L. Buhler, D.D. Champaign, Ill. : Weed Science Society of America. Clomazone at 0.7 kg ai/ha or more, applied early preplant, completely controlled weeds before planting of no-till soybeans. Under low weed density (57 plants/m² in untreated control) in 1985, grass weed control was nearly complete and not affected by clomazone application time. Late-season broadleaf weed control was less with preemergence application of clomazone at 1.1 or 1.4 kg/ha than with an early preplant or early preplant-preemergence split application of the same clomazone rate. Addition of metribuzin at 0.2 kg ai/ha overcame this control deficiency. Under greater weed densities (330 plants/m² in untreated control) during 1986 and 1987, early preplant-preemergence split applications gave the greatest control of both grass and broadleaf weeds throughout the growing seasons. Preemergence application of clomazone failed to completely control common lambsquarters emerged at the time of application. Early preplant applications failed to maintain redroot pigweed control throughout the season. Differences in soybean yield were attributed to differences in weed control. No significant carryover of clomazone residue was detected through greenhouse or field bioassays. Weed science. Sept 1988. v. 36 (5). p. 629-635. Includes references. (NAL Call No.: DNAL 79.8 W41).

0475

Inhibition of photosynthesis by ethylene--a stomatal effect (Includes peanuts, sweet potato, Jerusalem artichoke, sunflowers).
Pallas, J.E. Jr. Kays, S.J. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Apr 1981. Abstract only. v. 67 (4). p. 18. ill. (NAL Call No.: 450 P692).

0476

Micronutrient deficiencies and toxicities of cassava plants grown in nutrient solutions. I. Critical tissue concentrations (*Manihot esculenta*).
Howeler, R.H. Edwards, D.G.; Asher, C.J. New York, N.Y., Marcel Dekker. Journal of plant nutrition. 1982. v. 5 (8). p. 1059-1076. 27 ref. (NAL Call No.: QK867.J67).

(MISCELLANEOUS PLANT DISORDERS)

0477

Molybdenum enrichment of plants grown on fly ash-treated soils (Coal combustion residues, Alfalfa, Cynodon dactylon, white clover, barley, Swiss chard). Elseewi, A.A. Page, A.L. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1984. v. 13 (3). p. 394-398. illl. Includes references. (NAL Call No.: QH540.J6).

0478

Phytotoxicity of fungicide combinations incorporated into peat-lite mix, 1980 (Celosia (*Celosia cristata* (*Plumosa* sp.) 'Fairy Fountains'), eggplant (*Solanum melongena* var. *esculentum* 'Special Hibush'), Impatiens (*Impatiens wallerana* 'Extra Dwarf White Baby'), tomato (*Lycopersicon esculentum* 'Fireball'), Zinnia (*Zinnia elegans* 'Cupid'), damping-off; Pythium, Rhizoctonia, etc.). Daughtrey, M.L. Wells, S.L. (s.l.), The Society. Fungicide and nematicide tests: results - American Phytopathological Society. 1981. v. 36. p. 124. (NAL Call No.: 464.9 AM31R).

0479

Plant availability of heavy metals in a sludge-treated soil. I. Effect of sewage sludge and soil pH on the yield and chemical composition of rape (*Brassica napus*). Narwal, R.P. JEVQA. Singh, B.R.; Panhwar, A.R. Madison : American Society of Agronomy. Journal of environmental quality. July/Sept 1983. v. 12 (3). p. 358-365. Includes references. (NAL Call No.: QH540.J6).

0480

Preemergence weed control in row middles of polyethylene-mulched cauliflower (*Brassica oleracea*). WETEE9. Gilreath, J.P. Botts, D.A.; Stall, W.A.; Dusky, J.A. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. Apr/June 1989. v. 3 (2). p. 340-344. Includes references. (NAL Call No.: DNAL SB610.W39).

0481

Preemergent and early postemergent weed control on garlic. Penhallegon, R.H. William, R.D. S.I. : The Society. Research progress report - Western Society of Weed Science. 1988. p. 112-113. (NAL Call No.: DNAL 79.9 W52R).

0482

A preliminary study of the influence of chlorides on the growth of certain agricultural plants. AGJOAT. Tottingham, W.E. Madison, Wis. : American Society of Agronomy. A survey of previous field and greenhouse investigations of the effects of chlorides upon the growth and composition of plants discloses extremely variable results. It is apparent that the species of plant, the type of soil, and especially the complex of factors considered as climate, greatly influence these effects. In the present investigation the introduction of potassium and sodium chlorides into water cultures but slightly affected wheat plants during the first five weeks after germination. Buckwheat grown to apparent maturity in similar cultures was decidedly affected by the application of these chlorides. Although seed production remained apparently undisturbed, the length of roots and the yield of dry matter was depressed. The least production of dry matter in leaf blades and the greatest depression of water absorption per unit of dry matter of the foliar tissue occurred in the presence of sodium chloride. The radish responded only slightly, in yield and composition, to the application of potassium and sodium chlorides along with complete fertilizer in soil cultures in the greenhouse. Under similar conditions, increased production of dry matter and of the percentages of sugars therein resulted with the carrot, while the reverse was true of the parsnip. In the latter case sodium chloride was particularly injurious. The sugar beet gave the same general responses to chlorides as did the carrot, when grown in the greenhouse. While the roots were more watery where chlorides were applied, the yield of dry matter was greatly increased. The dry matter of such roots contained more glucose, but less sucrose, than that obtained from cultures in soil not receiving chlorides. Similar responses followed the application of common salt alone to beets grown in the field. The potato produced increased yields of dry matter in the tuber when potassium chloride was supplied in place of potassium sulfate, in a complete fertilizer ration, to soil cultures in the greenhouse. Relat. Agronomy journal. Literature review. Jan 1919. v. 11 (1). p. 1-32. Includes references. (NAL Call No.: DNAL 4 AM34P).

0483

Production potential and survival of fall- and spring-seeded asparagus (Cold temperature injury, crown, direct seeding). Dufault, R.J. JOSH. Greig, J.K. Alexandria : The Society. Journal of the American Society for Horticultural Science. Sept 1983. v. 108 (5). p. 763-767. Includes references. (NAL Call No.: 81 S012).

(MISCELLANEOUS PLANT DISORDERS)

0484

Response of winter rape to clopyralid and pyridate.

Callihan, R.H. Lass, L. S.I. : The Society. Research progress report - Western Society of Weed Science. 1988. p. 284-285. (NAL Call No.: DNAL 79.9 W52R).

0485

Studies on freezing injury in plant cells. II. Protein and lipid changes in the plasma membranes of Jerusalem artichoke tubers during a lethal freezing in vivo.

PLPNA. Uemura, M. Yoshida, S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1985. v. 80 (1). p. 187-195. ill. Includes 34 references. (NAL Call No.: DNAL 450 P692).

0486

Weed control and tolerances of Chinese cabbage and Chinese broccoli to pre and postemergence herbicides on mineral soils.

Shuler, K.D. Stall, W.M.; Locascio, S.J. S.I. : The Society. Proceedings of the ... annual meeting of the Florida State Horticulture Society. Aug 1988. v. 100. p. 224-226. Includes references. (NAL Call No.: DNAL SB319.2.F6F56).

0487

Wild garlic control in Illinois /by J.J. Pieper and L.F. Rickey.

Pieper, J. J. 1886-1939. Rickey, Lacy Fletcher, 1890-. Urbana, Ill. : University of Illinois College of Agriculture and Agricultural Experiment Station, 1930. 15 p. : ill., maps ; 23 cm. (NAL Call No.: DNAL 275.29 IL62C no.353).

PROTECTION OF PLANT PRODUCTS - GENERAL AND MISC.

0488

Chilling injury of eggplant fruits / by Lacy P. McColloch .
McColloch, Lacy Porter, 1907-. Washington, D.C. : Agricultural Research Service, U.S. Dept. of Agriculture, 1966. Cover title. 5 p. : ill. ; 23 cm. (NAL Call No.: DNAL 1 Ag84Mr no.749).

0489

Growth of Aeromonas hydrophila on fresh vegetables stored under a controlled atmosphere.
APMBA. Berrang, M.E. Brackett, R.E.; Beuchat, L.R. Washington, D.C. : American Society for Microbiology. The effects of controlled-atmosphere storage (CAS) on the survival and growth of *Aeromonas hydrophila* on fresh asparagus, broccoli, and cauliflower were examined. Two lots of each vegetable were inoculated with *A. hydrophila* 1653 or K144. A third lot served as an uninoculated control. Following inoculation, vegetables were stored at 4 or 15 degrees C under a CAS system previously shown to extend the shelf life of each commodity or under ambient air. Populations of *A. hydrophila* were enumerated on the initial day of inoculation and at various intervals for 10 days (15 degrees C) or 21 days (4 degrees C) of storage. Direct plating of samples with selective media was used to enumerate *A. hydrophila*. The organism was detected on most lots of vegetables as they were received from a commercial produce supplier. Without exception, the CAS system lengthened the time vegetables were subjectively considered acceptable for consumption. However, CAS did not significantly affect populations of *A. hydrophila* which survived or grew on inoculated vegetables. Applied and environmental microbiology. Sept 1989. v. 55 (9). p. 2167-2171. Includes references. (NAL Call No.: DNAL 448.3 AP5).

0490

Laboratory evaluation of pink root and fusarium basal rot resistance in garlic.
PLDRA. Rengwalska, M.M. Simon, P.W. St. Paul, Minn. : American Phytopathological Society. Plant disease. July 1986. v. 70 (7). p. 670-672. Includes 27 references. (NAL Call No.: DNAL 1.9 P69P).

0491

Market diseases of asparagus, onions, beans, peas, carrots, celery, and related vegetables / by Marion A. Smith, Lacy P. McColloch, and Bernard A. Friedman .
Smith, M. A. 1897-. McColloch, Lacy Porter, 1907-; Friedman, B. A. 1909-; Ramsey, Glen B. 1889-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Research Service, Market Quality Research Division, 1966. Revision of and supersedes Market diseases of fruits and vegetables: asparagus, onions,

beans, peas, carrots, celery, and related vegetables, by G.B. Ramsey and J.S. Wiant, issued as U.S. Dept. of Agriculture. Miscellaneous publication no. 440. iv, 65 p. : 17 plates (part col.) ; 24 cm. Bibliography: p. 56-65. (NAL Call No.: DNAL 1 Ag84Ah no.303).

0492

Market diseases of asparagus, onions, beans, peas, carrots, celery, and related vegetables by Marion A. Smith, Lacy P. McColloch, and Bernard A. Friedman .--.
Smith, Marion A., 1897-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Research Service, Market Quality Research Division, 1966. iv, 65, 17 p. : ill. --. Bibliography: p. 56-65. (NAL Call No.: DNAL Fiche S-85 no.303).

0493

Market diseases of cabbage, cauliflower, turnips, cucumbers, melons, and related crops / Glen B. Ramsey and M.A. Smith .
Ramsey, Glen B. 1889-. Smith, Marion Ashton. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service, Market Quality Research Division, 1961. 49 p., 24 p. of plates : ill. (some col.) ; 23 cm. Bibliography: p. 45-49. (NAL Call No.: DNAL 1 Ag84Ah no.184).

0494

Market diseases of cabbage, cauliflower, turnips, cucumbers, melons, and related crops Glen B. Ramsey and M.A. Smith. --.
Ramsey, Glen B., 1889-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service, Market Quality Research Division, 1961. ii, 49, 24 p. : ill. --. Bibliography: p. 45-49. (NAL Call No.: DNAL Fiche S-85 no.184).

0495

Market diseases of fruits and vegetables asparagus, onions, beans, peas, carrots, celery, and related vegetables /by Glen B. Ramsey and James S. Wiant .
Ramsey, Glen B. 1889-. Wiant, James S. 1900-. Washington, D.C. : U.S. Dept. of Agriculture, 1941. Cover title.~ "September 1941.". 70 p., 15 leaves of plates : ill. (some col.) ; 23 cm. Bibliography: p. 60-70. (NAL Call No.: DNAL 1 Ag84M no.440).

(PROTECTION OF PLANT PRODUCTS - GENERAL AND MISC.)

0496

Market diseases of fruits and vegetables beets,
endive, escarole, globe artichokes, lettuce,
rhubarb, spinach, Swiss chard and sweetpotatoes
/by Glen B. Ramsey and James S. Wiant.

Ramsey, Glen B. 1889-. Wiant, James S._1900-.
Washington, D.C. : U.S. Dept. of Agriculture,
1944. Caption title.~ "October 1944.". 40 p. ;
13 leaves of plates : ill. (some col.) ; 23
cm. Bibliography: p. 33-40. (NAL Call No.: DNAL
1 Ag84M no.541).

0497

Market diseases of tomatoes, peppers, and
eggplants /by Glen B. Ramsey, James S. Wiant
and Lacy P. McColloch.

Ramsey, Glen B. 1889-. Wiant, James S._1900-;
McColloch, Lacy Porter,_1907-. Washington, D.C.
: U.S. Dept. of Agriculture, 1952. "Extensive
revision of and supersedes Miscellaneous
publication no. 121.". 54 p., 15 p. of plates
(some col.) ; 24 cm. Bibliography: p. 50-54.
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0498

Wild onion and wild garlic control /by L.V.
Sherwood.

Sherwood, L. V. 1907-. Urbana, Ill. :
University of Illinois, College of Agriculture,
Extension Service in Agriculture and Home
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PROTECTION OF PLANT PRODUCTS - INSECTS

0499

Disinfestation of wheat germ, wheat, and dried mushrooms by irradiation.

Kovacs, E. Kiss, I.; Kuroli, G. Honolulu : Hawaii Institute of Tropical Agric. & Human Resources, Univ. of Hawaii, Manoa, 1985.

Radiation disinfection of food and agricultural products : proceedings of an international conference, Honolulu, Hawaii, November 14-18, 1983 / edited by James H. Moy. p. 189-198. Includes 6 references. (NAL Call No.: DNAL TP371.8.R284).

0500

Food preference of seven stored product insects to dried processed taro products (*Colocasia esculenta*).

Jang, E.B.PHESA. Lin, C.S.; Mitchell, W.C. Honolulu : The Society. Proceedings of the Hawaiian Entomological Society. Sept 15, 1982. v. 24 (1). p. 97-108. Includes references. (NAL Call No.: 420 H312).

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0501

Absorption and translocation of 14C-chlorsulfuron and 14C-metsulfuron in wild garlic (*Allium vineale*).
WEESA6. Leys, A.R. Slife, F.W. Champaign, Ill. : Weed Science Society of America. *Weed science*. Jan 1988. v. 36 (1). p. 1-4. Includes references. (NAL Call No.: DNAL 79.8 W41).

0502

Antagonism of thiometuron-methyl by metribuzin on wild garlic.
SWSPBE. Oakes, J.L. Hayes, R.M.; Rhodes, G.N. Jr. Raleigh, N.C. : The Society. Proceedings - Southern Weed Science Society. Paper presented at the "Meeting on Environmental Legislation and its Effects on Weed Science," Jan 18/20, 1988, Tulsa, Oklahoma. 1988. v. 41. p. 103. (NAL Call No.: DNAL 79.9 S08 (P)).

0503

Burdock control in Nevada.
Hackett, I. Davison, J. Reno, Nev. : College of Agriculture, University of Nevada-Reno, Nevada Cooperative Extension. Fact sheet - College of Agriculture, University of Nevada-Reno, Nevada Cooperative Extension. 1986. (19). 3 p. ill. Includes references. (NAL Call No.: DNAL S544.3.N3C66).

0504

Central Irrigated Washington Weed Control Guide: Weed control in asparagus.
WUEXA. Parker, R. Pullman, Wash. : The Service. Extension bulletin - Washington State University, Cooperative Extension Service. Mar 1986. (1145, rev.). 6 p. (NAL Call No.: DNAL 275.29 W27P).

0505

Chemical weed control in asparagus.
Parker, R. Pullman, Wash., The Service. EM - Washington State University, Cooperative Extension Service. Sept 1980. Sept 1980. (4620). 3 p. (NAL Call No.: 275.29 W27MI).

0506

Chemical weed control in asparagus, lima beans, vine crops, sweet corn, and strawberries /by E.M. Rahn.
Rahn, E. M. Newark, Del. : University of Delaware Agricultural Experiment Station, 1954. Cover title. 32 p. : ill. ; 23 cm.
Bibliography: p. 31-32. (NAL Call No.: DNAL 100 D37S (1) no.303).

0507

Chemical weed control in Asparagus (Washington).
Parker, R. WUEXA. Pullman : The Service. Extension Bulletin - Washington State University, Cooperative Extension Service. Aug 1982. Revision of EM4620. Aug 1982. (1145). 5 p. (NAL Call No.: 275.29 W27P).

0508

Chicory control and eradication /Albert A. Hansen.

Hansen, Albert A. 1891-1940. Washington, D.C. : U.S. Dept. of Agriculture, 1920. "Contribution from the Bureau of Plant Industry (Office of Forage-Crop Investigations)." . 4 p. : ill. ; 23 cm. (NAL Call No.: DNAL 1 Ag84D no.108).

0509

Chloramben for weed control on muck-grown lettuce, *Lactuca sativa*, and endive, *Cichorium endivia*.

WETEE9. Gorski, S.F. Reiners, S.; Hassell, R. Champaign, Ill. : The Society. *Weed technology* : a journal of the Weed Science Society of America. July 1988. v. 2 (3). p. 262-264. Includes references. (NAL Call No.: DNAL SB610.W39).

0510

Clubroot (*Plasmodiophora brassicae*) control in cauliflower and brussels sprouts with benzimidazole transplanting drenches and soil pH (hydrogen-ion concentration) manipulation.
Tate, K.G. Palmerston North, New Zealand Weed and Pest Control Society. *Proceedings. New Zealand Weed and Pest Control Conference*. 1979. 1979. (32d). p. 165-170. ill. 3 ref. (NAL Call No.: 79.9 N213).

0511

Control and elimination of noxious weeds.
Derscheid, Lyle A. Wrage, Leon J. Document available from: South Dakota State University, Ag. Information Bulletin Room, Extension Building, Brookings, South Dakota 57007 19--?. Field bindweed, Canada thistle, perennial sowthistle, leafy spurge, hoary cress, Russian knapweed, horse nettle, and quackgrass are the weeds specifically examined. Control information is given to reduce stands from 75-90%, 109-50%, and 10-25%. 5 p. (NAL Call No.: Document available from source.).(NAL Call No.: FS 448).

0512

Control of buttercup oxalis in artichokes with oxyfluorfen.

WSWPA. Hildreth, R.C. Agamalian, H. Reno : The Society. Proceedings - Western Society of Weed Science. 1985. v. 38. p. 187-195. (NAL Call No.: DNAL 79.9 W52).

0513

Control of Cruciferae weeds in canola (*Brassica napus*) with DPX A7881.

WEESA6. Blackshaw, R.E. Champaign, Ill. : Weed Science Society of America. Postemergence control of broadleaf weeds in canola with DPX A7881 was studied under controlled-environment and field conditions. DPX A7881 controlled weeds of the Cruciferae family such as wild mustard, field pennycress, and flixweed, which are not controlled with existing herbicides used for weed control in canola. Weed control was better when DPX A7881 was applied at the two-leaf than at the six-leaf stage of the weeds. At the two-leaf stage, control of flixweed was achieved with 15 g ai/ha of DPX A7881; 20 to 30 g ai/ha was required for control of wild mustard and field pennycress. Control of redroot pigweed required 30 g ai/ha. Common lambsquarters was not controlled in this study with DPX A7881 up to 60 g ai/ha. Control of weeds with DPX A7881 increased canola yields in this study without altering the important quality components: oil content, 1000-kernel weight, and green seed content. DPX A7881 provides a postemergence alternative to existing herbicides for broadleaf weed control in canola. Weed science. Sept 1989. v. 37 (5). p. 706-711. Includes references. (NAL Call No.: DNAL 79.8 W41).

0514

Control of Jerusalem artichoke (*Helianthus tuberosus*) in Barley (*Hordeum vulgare*).

WEESA6. Wall, D.A. Kiehn, F.A.; Friesen, G.H. Champaign, Ill. : Weed Science Society of America. Weed science. Sept 1986. v. 34 (5). p. 761-764. Includes references. (NAL Call No.: DNAL 79.8 W41).

0515

Control of volunteer asparagus seedlings.

WSWPA. Boydston, R.A. Reno, Nev. : The Society. Proceedings - Western Society of Weed Science. 1987. v. 40. p. 149-150. (NAL Call No.: DNAL 79.9 W52).

0516

The effect of experimental herbicides on wright groundcherry in cotton.

Chernicky, J.P. Hamilton, K.C. S.I. : Western Society of Weed Science. Research progress report - Western Society of Weed Science. 1986. p. 139-140. (NAL Call No.: DNAL 79.9 W52R).

0517

Effect of preemergence and rope wick applications of glyphosate on rhubarb.

HUHSA. Creager, R.A. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1985. v. 20 (1). p. 125-126. ill. Includes 12 references. (NAL Call No.: DNAL SB1.H6).

0518

Effect of weedy backgrounds on colonization of collards by green peach aphid, *Myzus persicae*, and its major predators.

Horn, D.J. College Park, Md., Entomological Society of America. Environmental entomology. June 1981. v. 10 (3). p. 285-289. ill. 15 ref. (NAL Call No.: QL461.E532).

0519

Effectiveness of selected herbicides and discing on volunteer horseradish control (*Armoracia rusticana*, weed).

Burke, M.C. JOSHB. Hopen, H.J. Alexandria : The Society. Journal of the American Society for Horticultural Science. Jan 1983. v. 108 (1). p. 145-148. Includes references. (NAL Call No.: 81 SC12).

0520

Effects of date and depth of burial on wild garlic (*Allium vineale*) plants (Weed control).

Peters, E.J. Lowrance, S.A. Champaign, Ill., Weed Science Society of America. Weed science. Jan 1981. v. 29 (1). p. 110-113. 11 ref. (NAL Call No.: 79.8 W41).

0521

Eggplant (*Solanum melongena L.*) transplants and exudates from roots of seven weeds.

JAUPA. Almodovar-Vega, L. Guzman-Perez, C.D.; Semidey-Laracuente, N. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. The Journal of agriculture of the University of Puerto Rico. July 1988. v. 72 (3). p. 495-497. ill. Includes references. (NAL Call No.: DNAL 8 P832J).

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0522

'Escaped' artichokes are troublesome pests.
CAGRA. Thomsen, C.D. Barbe, G.D.; Williams, W.A.; George, M.R. Berkeley, Calif. : The Station. California agriculture - California Agricultural Experiment Station. Mar/Apr 1986. v. 40 (3/4). p. 7-9. ill. (NAL Call No.: DNAL 100 C12CAG).

0523

Evaluation of herbicide treatments for control of hoary cress.
Ferrell, M.A. Whitson, T.D. S.I. : Western Society of Weed Science. Research progress report - Western Society of Weed Science. 1987. p. 58. (NAL Call No.: DNAL 79.9 W52R).

0524

Evaluation of herbicides for weed control in spring and fall planted broccoli and cauliflower.
Olson, S.M. SWSPB. Stall, W.M. Champaign : The Society. Proceedings - Southern Weed Science Society. 1983. 1983. (36th). p. 166-173. Includes references. (NAL Call No.: 79.9 S08).

0525

Field tests with the musk thistle insects *Trichosirocalus (Ceuthorhynchidius) horridus* and *Ceuthorhynchus trimaculatus* to determine their impact on artichoke (Biological control of weeds).
Rizza, A. Spencer, N.R. College Park, Md., Entomological Society of America. Environmental entomology. June 1981. v. 10 (3). p. 332-334. ill. 8 ref. (NAL Call No.: QL461.E532).

0526

Fungicides to control fungal competitors in Chinese straw mushroom.
JAUPA. Rivera-Vargas, L.I. Hepperly, P.R. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. The Journal of agriculture of the University of Puerto Rico. Apr 1987. v. 71 (2). p. 165-176. Includes references. (NAL Call No.: DNAL 8 P832U).

0527

Garlic weed competition.
CAGRA. Agamalian, H.S. Kurtz, E.A. Berkeley, Calif. : The Station. California agriculture - California Agricultural Experiment Station. Jan/Feb 1989. v. 43 (1). p. 11-12. ill. (NAL Call No.: DNAL 100 C12CAG).

0528

Glyphosate for bermudagrass control (*Cynodon dactylon*) in asparagus.
Beste, C.E. Jeffers, W.F. Beltsville, Md., The Society. Proceedings - annual meeting of the Northeastern Weed Science Society. Northeastern Weed Science Society. p. 169-170. p. 169-170. (NAL Call No.: 79.9 N814).

0529

Groundcherry control with and tomato tolerance to ethalfluralin post applied treatments (*Physalis lanceifolia*, herbicides, California). Reyes, C. Sacramento : California Weed Conference Office. Proceedings - California Weed Conference. 1982. 1982. (34th). p. 85-95. 2 ref. (NAL Call No.: 79.9 C122).

0530

Herbicides for celery, lettuce and carrots in the Everglades agricultural area (Florida). Dusky, J.A. PFSHA. Lake Alfred : The Society. Proceedings of the ... annual meeting - Florida State Horticultural Society. 1982. v. 95. p. 339-342. Includes references. (NAL Call No.: 81 F66).

0531

Influence of application time on clomazone activity in no-till soybeans, *Glycine max*. WEESA6. Werling, V.L. Buhler, D.D. Champaign, Ill. : Weed Science Society of America. Clomazone at 0.7 kg ai/ha or more, applied early preplant, completely controlled weeds before planting of no-till soybeans. Under low weed density (57 plants/m² in untreated control) in 1985, grass weed control was nearly complete and not affected by clomazone application time. Late-season broadleaf weed control was less with preemergence application of clomazone at 1.1 or 1.4 kg/ha than with an early preplant or early preplant-preemergence split application of the same clomazone rate. Addition of metribuzin at 0.2 kg ai/ha overcame this control deficiency. Under greater weed densities (330 plants/m² in untreated control) during 1986 and 1987, early preplant-preemergence split applications gave the greatest control of both grass and broadleaf weeds throughout the growing seasons. Preemergence application of clomazone failed to completely control common lambsquarters emerged at the time of application. Early preplant applications failed to maintain redroot pigweed control throughout the season. Differences in soybean yield were attributed to differences in weed control. No significant carryover of clomazone residue was detected through greenhouse or field bioassays. Weed science. Sept 1988. v. 36 (5). p. 629-635. Includes references. (NAL Call No.: DNAL 79.8 W41).

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0532

The influence of herbicide formulation on weed control in four tillage systems.

WEESA6. Johnson, M.D. Wyse, D.L.; Lueschen, W.E. Champaign, Ill. : Weed Science Society of America. The objectives of this research were to compare the weed control efficacy of liquid, granular, and microencapsulated formulations of preemergence herbicides in moldboard plow, chisel plow, ridge tillage, and no-tillage corn and soybean production systems, and to determine whether herbicide formulation can influence herbicide interception and retention on surface corn residue. Common lambsquarters populations were threefold higher in corn than in soybeans. A mixed population of giant foxtail and green foxtail was highest in the chisel plow and lowest in the ridge tillage system as were total weed numbers. Percent weed control was not influenced by tillage when considered across all herbicide treatments. Weed control was not influenced by herbicide formulation in the moldboard plow, chisel plow, or ridge tillage systems, but granular herbicide applications provided better weed control than liquid applications in the no-tillage system and across various rates of corn residue in an experiment with no tillage variables. Two- to threefold less granular-applied herbicide was intercepted by surface corn residue at the time of application compared to liquid-applied herbicide. Increasing amounts of postapplication rainfall decreased the difference among formulations with regard to both total soil reception of the herbicide and resultant weed control. There was no consistent advantage for the microencapsulated formulation over the other herbicide formulations. Surface corn residue controlled many weeds without the aid of a herbicide and actually contributed to overall weed control even where herbicides were applied. This suggests that the binding of preemergence herbicides on surface crop residue may not be the cause of weed control failures in reduced-tillage systems as is often assumed to be the case. *Weed science*. Mar 1989. v. 37 (2). p. 239-249. Includes references. (NAL Call No.: DNAL 79.8 W41).

0533

Influence of Jerusalem artichoke (*Helianthus tuberosus*) density and duration of interference on soybean (*Glycine max*) growth and yield.

WEESA6. Wyse, D.L. Young, F.L.; Jones, R.J. Champaign, Ill. : Weed Science Society of America. *Weed science*. Mar 1986. v. 34 (2). p. 243-247. Includes 14 references. (NAL Call No.: DNAL 79.8 W41).

0534

Mayweed chamomile control in late planted winter rape.

Lass, L. Callihan, R.H.; Miller, T. S.I. : The Society. Research progress report - Western Society of Weed Science. 1988. p. 288-289. (NAL Call No.: DNAL 79.9 W52R).

0535

Mushroom facts for safety and enjoyment.

Shipman, J.S. Blanchard, R.O. Durham, N.H. : The Service. Extension publication - Cooperative Extension Service, University of New Hampshire. Aug 1981. (34). 11 p. ill. Includes references. (NAL Call No.: DNAL S544.3.N4N4).

0536

New herbicides for kale and collards (Alachlor, metolachlor, abstract only).

Beste, C.E. Beltsville, Md., The Society. Proceedings - annual meeting of the Northeastern Weed Science Society. Northeastern Weed Science Society. p. 177.p. 177. (NAL Call No.: 79.9 N814).

0537

Parasitism of cabbage aphid and green peach aphid (Homoptera: Aphididae) on collards in relation to weed management.

EVETEX. Horn, D.J. College Park, Md. : Entomological Society of America. In Davis, Calif., cabbage aphids, *Brevicoryne brassicae* (L.), and green peach aphids, *Myzus persicae* (Sulzer), were sampled from collards planted October 1982 and March 1983 in replicated plots (3 by 7 m) where weeds were subjected to one of three treatments--mowed, tilled, or unmanaged. In the October planting, collards and weeds began growth simultaneously, and weeds had no apparent impact on collard growth or on colonization by either aphid species. Parasitism of aphids by *Diaeretiella rapae* (McIntosh) was significantly higher in plots containing unmanaged weeds only once (6 December), and during early November secondary parasitism, mostly by *Alloxysta fuscicornis* (Hartig), was greater in tilled and mowed plots (18-38%) than where weeds were unmanaged (0-5%). In the March planting, collards were planted among preexisting weeds; collard growth among weeds was retarded as was the development of aphid populations. Primary parasitism was negligible (as were aphids) in unmanaged weedy plots and greater in mowed (7.2%) than in tilled plots (3.6%). The overall impact of parasitism on aphid populations was minimal. Secondary parasitism (again mostly by *A. fuscicornis*) averaged 40.8% in tilled, 7.5% in mowed, and none in weedy plots. Environmental entomology. Apr 1988. v. 17 (2). p. 354-358. Includes references. (NAL Call No.: DNAL QL461.E532).

0538

Pre and post transplant herbicides for cole crops.

PNW6B. Warholic, D.T. Ramirez, A.J. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. Jan 1984. v. 38. p. 115-117. (NAL Call No.: DNAL 79.9 N814).

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0539

Preemergence weed control in row middles of polyethylene-mulched cauliflower (*Brassica oleracea*).
WETEE9. Gilreath, J.P. Botts, D.A.; Stall, W.A.; Dusky, J.A. Champaign, Ill. : The Society. *Weed technology : a journal of the Weed Science Society of America*. Apr/June 1989. v. 3 (2). p. 340-344. Includes references. (NAL Call No.: DNAL SB610.W39).

0540

Preemergent and early postemergent weed control on garlic.

Penhallegon, R.H. William, R.D. S.I. : The Society. *Research progress report - Western Society of Weed Science*. 1988. p. 112-113. (NAL Call No.: DNAL 79.9 W52R).

0541

Reduction of nitrate and nitrite in lambsquarters (*Chenopodium album*) biotypes resistant and susceptible to atrazine toxicity.
Lawrence, J.M. Foster, R.J.; Herrick, H.E. Bethesda, Md., American Society of Plant Physiologists. *Plant physiology*. May 1980. v. 65 (5). p. 984-989. ill. 29 ref. (NAL Call No.: 450 P692).

0542

The response of wild garlic (*Allium vineale*) to the timing of spray applications of chlorsulfuron.

WEESA6. Leys, A. Slife, F.W. Champaign, Ill. : *Weed Science Society of America. Weed science*. Sept 1986. v. 34 (5). p. 718-723. Includes references. (NAL Call No.: DNAL 79.8 W41).

0543

Response of winter rape to clopyralid and pyridate.

Callahan, R.H. Lass, L. S.I. : The Society. *Research progress report - Western Society of Weed Science*. 1988. p. 284-285. (NAL Call No.: DNAL 79.9 W52R).

0544

Seedling volunteer asparagus, *Asparagus officinalis*, control with herbicides.

WETEE9. Boydston, R.A. Champaign, Ill. : The Society. *Weed technology : a journal of the Weed Science Society of America*. July 1988. v. 2 (3). p. 294-298. Includes references. (NAL Call No.: DNAL SB610.W39).

0545

Selective weed control in cole crops (Broccoli, cauliflower, cabbage, and brussel sprouts). Agamalian, H. Sacramento, Calif. : California Weed Conference Office. *Proceedings - California Weed Conference*. 1984. 1984. (36th). p. 118-120. (NAL Call No.: 79.9 C122).

0546

Spring and summer development of mayweed chamomile in association with winter rape.
Lass, L. Callahan, R.H. S.I. : The Society. *Research progress report - Western Society of Weed Science*. 1988. p. 286-287. (NAL Call No.: DNAL 79.9 W52R).

0547

Variation of myristicin content in cultivated parsnip roots (*Pastinaca sativa* ssp. *sativa* var. *hortensis*).

Stahl, E. Washington, D.C., American Chemical Society. *Journal of agricultural and food chemistry*. July/Aug 1981. v. 29 (4). p. 890-892. 4 ref. (NAL Call No.: 381 J8223).

0548

Volunteer Jerusalem artichoke (*Helianthus tuberosus*) interference and control in barley (*Hordeum vulgare*).

WETEE9. Wall, D.A. Friesen, G.H. Champaign, Ill. : The Society. *Weed technology : a journal of the Weed Science Society of America*. Jan/Mar 1989. v. 3 (1). p. 170-172. Includes references. (NAL Call No.: DNAL SB610.W39).

0549

Weed control and tolerances of Chinese cabbage and Chinese broccoli to pre and postemergence herbicides on mineral soils.

Shuler, K.D. Stall, W.M.; Locascio, S.J. S.I. : The Society. *Proceedings of the ... annual meeting of the Florida State Horticulture Society*. Aug 1988. v. 100. p. 224-226. Includes references. (NAL Call No.: DNAL SB319.2.F6F56).

0550

Weed control for cabbage, cauliflower, and broccoli using alachlor and napropamide (Abstract only).

Grenoble, D.W. Ferretti, P.A. Beltsville, Md., The Society. *Proceedings - annual meeting of the Northeastern Weed Science Society*. Northeastern Weed Science Society. p. 175-176. p. 175-176. (NAL Call No.: 79.9 N814).

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0551

Weed control for eggplants grown on clear plastic mulch (Abstract only).
Gorske, S.F. Beltsville, Md., The Society. Proceedings - annual meeting of the Northeastern Weed Science Society. Northeastern Weed Science Society. p. 167-168. p. 167-168. (NAL Call No.: 79.9 N814).

0552

Weed control in asparagus.
Hart, J.E. Sacramento, Calif. : California Weed Conference Office. Proceedings - California Weed Conference. Paper presented at a conference on "Education and Communication--the Keys to the Future," January 18-21, 1988, Sacramento, California. 1988. (40). p. 128-130. (NAL Call No.: DNAL 79.9 C122).

0553

Weed control in asparagus with monuron and diuron /V.F. Bruns, W.J. Clore and J.H. Dawson. Bruns, V. F. Clore, W. J.; Dawson, J. H. 1933-. Pullman, Wash. : Washington Agricultural Experiment Stations, Institute of Agricultural Sciences, Washington State University, 1962. Cover title. 15 p. ; 23 cm. Bibliography: p. 14-15. (NAL Call No.: DNAL 100 W27E no.635).

0554

Weed control in cauliflower.
Gilreath, J.P. PFSHA. Lake Alfred : The Society. Proceedings of the ... annual meeting - Florida State Horticultural Society. 1982. v. 95. p. 342-344. Includes references. (NAL Call No.: 81 F66).

0555

Weed control in no-tillage cassava in the subhumid and humid tropics (*Manihot esculenta*). Akobundu, I.O. Corvallis, Or. : International Plant Protection Center, Oregon State University, 1983. No-tillage crop production in the Tropics : proceedings, symposium held Aug 6-7, 1981, Monrovia, Liberia / spon. West African Weed Science Society and International Weed Science Society ; ed. I.O. Akobundu, A.E. Deutsch. p. 119-126. Includes references. (NAL Call No.: S604.37.N6).

0556

Weed control in onions and garlic.
Kurtz, E.A. Sacramento, Calif. : California Weed Conference Office. Proceedings - California Weed Conference. 1984. 1984. (36th). p. 113-114. (NAL Call No.: 79.9 C122).

0557

Weed control in seeded cabbage, mustard greens, spinach and in transplanted broccoli grown under conservation tillage practices.
JRGVA. Menges, R.M. Heilman, M.D. Weslaco : The Society. Journal of the Rio Grande Valley Horticultural Society. 1986. v. 39. p. 83-89. Includes references. (NAL Call No.: DNAL 81 L95).

0558

Weed control in transplanted cabbage, cauliflower, and broccoli.
Stamm, G.K. Ashley, R.A. Beltsville, Md., The Society. Proceedings - annual meeting of the Northeastern Weed Science Society. Northeastern Weed Science Society. 1980. v. 34. p. 201-203. ill. (NAL Call No.: 79.9 N814).

0559

Weed control studies in basil and parsley.
Weller, S.C. West Lafayette, Indiana : The Station. Station bulletin - Purdue University, Agricultural Experiment Station. Paper presented at the Second National Herb Growing and Marketing Conference, July 19-22, 1987, Indianapolis, Indiana. 1987. (530). p. 83. (NAL Call No.: DNAL HD1775.I6I5).

0560

Weed, insect, and disease control guide: Asparagus; cucumbers, melons, pumpkins, squash; rhubarb. Commercial vegetable.
Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Outlines herbicide, insecticide and fungicide suggestions for asparagus, cucumbers, melons, pumpkins, squash and rhubarb. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 599).

0561

Weed, insect, and disease control guide: beets, carrots, lettuce, onions parsnips, radishes, rutabagas, turnips, spinach.
Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A. ; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicides, insecticides and fungicide suggestions for beets, carrots, lettuce, onions, parsnips, radishes, rutabagas, turnips and spinach. 7 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 600).

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0562

Weed, insect, and disease control guide: cabbage, broccoli, cauliflower, brussels sprouts.
Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. & Commercial vegetable. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicide, insecticide and fungicide suggestions for cabbage, broccoli, cauliflower and brussels sprouts. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 598).

0563

Weed, insect, and disease control guide: eggplant, peppers, tomatoes.
Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pfleger, F. L.; Bissonnette, Howard L. & Commercial vegetable. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Lists herbicide, insecticide and fungicide suggestions for eggplants, tomatoes and peppers. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 597).

0564

Weeds in tropical crops : review of abstracts on constraints in production caused by weeds in maize, rice, sorghum-millet, groundnuts and cassava, 1952 - 1980 / by Jacqueline M. Benson.
Benson, Jacqueline M. Rome Food and Agriculture Organization of the United Nations 1982. 63 p. ; 28 cm. --. Bibliography: p. 62-63. (NAL Call No.: SB13.F6 no.32 Suppl. 1).

0565

Wild garlic its characteristics and control /by Elroy J. Peters, J.F. Stritzke, and Frank S. Davis.
Peters, Elroy J. 1922-. Stritzke, J. F. 1937-; Davis, Frank S. Washington, D.C. : Agricultural Research Service, U.S. Dept. of Agriculture in cooperation with Missouri Agricultural Experiment Station, 1965. Caption title. 23 p. : ill. ; 24cm. Bibliography: p. 22-23. (NAL Call No.: DNAL 1 Ag84Ah no.298).

0566

Wild garlic (*Allium vineale*) control with glyphosate.
Troutman, B.C. King, J.W.; Frans, R.E. Champaign, Ill., Weed Science Society of America. Weed science. Nov 1981. v. 29 (6). p. 717-722. 11 ref. (NAL Call No.: 79.8 W41).

0567

Wild garlic and its eradication / F.J. Pipal .
Pipal, Francis John, 1881-. Lafayette, Ind. : Purdue University Agricultural Experiment Station, 1914. Cover title. 43 p. : ill., 1 map ; 22 cm. (NAL Call No.: DNAL 100 In2P no.176).

0568

Wild garlic control.
Spinney, R.L. Appleby, A.P.; Brewster, B.D. S. I. : Western Society of Weed Science. Research progress report - Western Society of Weed Science. 1987. p. 3. (NAL Call No.: DNAL 79.9 W52R).

0569

Wild garlic its characteristics and control / by Elroy J. Peters, J.F. Stritzke, and Frank S. Davis . --.
Peters, Elroy J., 1922-. Washington, D.C. : Agricultural Research Service, U.S. Dept. of Agriculture in cooperation with the Missouri Agricultural Experiment Station, 1965. 23 p. : ill. --. Bibliography: p. 22-23. (NAL Call No.: DNAL Fiche S-85 no.298).

PESTICIDES - GENERAL

0570

Arthropod control on cucurbits and eggplant (Florida).

Schuster, D.J. S.I., The Society. Proceedings of the ... annual meeting of the Florida State Horticultural Society. 1981 (pub. 1982). v. 94. p. 147-149. Includes 3 ref. (NAL Call No.: 81 F66).

0571

Benomyl in acetone eradicates Fusarium moniliforme and Fusarium oxysporum from asparagus seed (Fungi, root, stem, and crown rots).

Damicone, J.P. Cooley, D.R.; Manning, W.J. St. Paul, Minn., American Phytopathological Society. Plant disease. Nov 1981. v. 65 (11). p. 892-893. (NAL Call No.: 1.9 P69P).

0572

Capillary gas chromatographic determination of prometry and its degradation products in parsley.

JANCA2. Bardalye, P.C. Wheeler, W.B. Arlington, Va. : The Association. Journal of the Association of Official Analytical Chemists. July/Aug 1985. v. 68 (4). p. 750-753. Includes 5 references. (NAL Call No.: DNAL 381 AS7).

0573

Central Irrigated Washington Weed Control Guide: Weed control in asparagus.

WUEXA. Parker, R. Pullman, Wash. : The Service. Extension bulletin - Washington State University, Cooperative Extension Service. Mar 1986. (1145,rev.). 6 p. (NAL Call No.: DNAL 275.29 W27P).

0574

Characterization of chloroplasts isolated from triazine-susceptible and triazine-resistant biotypes of *Brassica campestris* L. (Bird rape, herbicides).

Burke, J.J. Wilson, R.F.; Swafford, J.R. Rockville, American Society of Plant Physiologists. Plant physiology. July 1982. v. 70 (1). p. 24-29. ill. 25 ref. (NAL Call No.: 450 P69Z).

0575

Control and elimination of noxious weeds.

Derscheid, Lyle A. Wrage, Leon J. Document available from: South Dakota State University, Ag. Information Bulletin Room, Extension Building, Brookings, South Dakota 57007 19--?. Field bindweed, Canada thistle, perennial sowthistle, leafy spurge, hoary cress, Russian knapweed, horse nettle, and quackgrass are the

weeds specifically examined. Control information is given to reduce stands from 75-90%, 109-50%, and 10-25%. 5 p. (NAL Call No.: Document available from source.).(NAL Call No.: FS 448).

0576

Control of *Brachycorynella asparagi* (Homoptera: Aphididae) in irrigated asparagus with granular systemic insecticides, and disulfoton degradation in asparagus fern.

JEENAI. Wildman, T.E. Cone, W.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. Aug 1988. v. 81 (4). p. 1196-1202. Includes references. (NAL Call No.: DNAL 421 J822).

0577

Degradation of disulfoton in soil and its translocation into asparagus (Control of the european asparagus aphid, *Brachycolus asparagi*).

Szeto, S.Y. JAFCA. Vernon, R.S.; Brown, M.J. Washington : American Chemical Society. Journal of agricultural and food chemistry. Mar/Apr 1983. v. 31 (2). p. 217-220. Includes references. (NAL Call No.: 381 J8223).

0578

Degradation of disulfoton, oxydemeton-methyl, methamidophos and demeton in asparagus plant.

JPFC2. Szeto, S.Y. Vernon, R.S.; Brown, M.J. New York, N.Y. : Marcel Dekker. Journal of environmental science and health. Part B. Pesticides, food contaminants, and agricultural wastes. 1985. v. 20 (3). p. 299-312. ill. Includes 7 references. (NAL Call No.: DNAL TD172.J61).

0579

Determination of allidochlor residues in pre-and/or postemergence-treated leeks (Herbicide residues in leeks, *Allium porrum*).

Cessna, A. Washington : American Chemical Society. Journal of agricultural and food chemistry. Jan/Feb 1984. v. 32 (1). p. 171-173. ill. Includes references. (NAL Call No.: 381 J8223).

0580

Diflubenzuron and BAY SIR 8514 in mushrooms grown in treated compost or casing.

Argauer, R.J. Cantelo, W.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. Apr 1984. v. 77 (2). p. 462-467. Includes references. (NAL Call No.: 421 J822).

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0581

Direct analysis of carbofuran (insecticide) and 3-hydroxycarbofuran in rape plants by reverse-phase high-pressure liquid chromatography (Uptake).

Lee, Y.W. Westcott, N.D. Washington, D.C., American Chemical Society. Journal of agricultural and food chemistry. July/Aug 1980. v. 28 (4). p. 719-722. ill. 9 ref. (NAL Call No.: 381 J8223).

0582

Disappearance of acephate residues from beans, carrots, celery, lettuce, peppers, potatoes, strawberries, and tomatoes.

Frank, R. Ritchey, G.; Braun, H.E.; McEwen, F.L. College Park, Md. : Entomological Society of America. Journal of economic entomology. Oct 1984. v. 77 (5). p. 1110-1115. Includes 12 references. (NAL Call No.: 421 J822).

0583

Drip chemigation of asparagus with disulfoton: *Brachycorynella asparagi* (Homoptera: Aphididae) control and disulfoton degradation.

JEENAI. Wildman, T.E. Cone, W.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. Dec 1986. v. 79 (6). p. 1617-1620. Includes references. (NAL Call No.: DNAL 421 J822).

0584

Effects on honey-bee colonies following application of the pyrethroids cypermethrin and PP 321 in flowering oilseed rape.

ABJOA. Fries, I. Vibran, K. Hamilton, Ill. : Dadant & Sons. American bee journal. Apr 1987. v. 127 (4). p. 266-269. Includes references. (NAL Call No.: DNAL 424.8 AM3).

0585

Efficacy, persistence, and phytotoxicity of aldicarb applied as a pretransplant treatment to eggplant for Colorado potato beetle (Coleoptera: Chrysomelidae) protection (*Leptinotarsa decemlineata*, *Solanum melongena*). Silcox, C.A. Lashomb, J.H.; Ghidiu, G.M.; Race, S.R. College Park, Md. : Entomological Society of America. Journal of economic entomology. Apr 1984. v. 77 (2). p. 529-533. Includes references. (NAL Call No.: 421 J822).

0586

Evaluation of herbicides for weed control in asparagus.

AKFRAC. Johnson, D.H. Talbert, R.E. Fayetteville, Ark. : The Station. Arkansas farm research - Arkansas Agricultural Experiment Station. Jan/Feb 1988. v. 37 (1). p. 15. (NAL Call No.: DNAL 100 AR42F).

0587

Extraction efficiencies for pesticides in crops: ^{14}C (carbon isotope)-benomyl extraction from mustard greens and radishes.

Wheeler, W.B. Thompson, N.P.; Andrade, P.; Krause, R.T. Arlington, Va., The Association. Journal of the Association of Official Analytical Chemists. Nov 1980. v. 63 (6). p. 1286-1290. 9 ref. (NAL Call No.: 381 AS7).

0588

Fate of the insecticide chlорfenvinphos in the soil of cauliflower field crops.

BECTA6. Rouchaud, J. Roucourt, P.; Steene, F. van de; Pelerents, C.; Gillet, J.; Benoit, F.; Ceustersmans, N. New York, N.Y. : Springer-Verlag. Bulletin of environmental contamination and toxicology. Jan 1988. v. 40 (1). p. 47-53. Includes references. (NAL Call No.: DNAL RA1270.P35A1).

0589

Gas chromatographic analysis of the herbicide bentazon in leeks.

JAFCAU. Cessna, A. Washington, D.C. : American Chemical Society. Journal of agricultural and food chemistry. Jan/Feb 1985. v. 33 (1). p. 108-110. Includes references. (NAL Call No.: DNAL 381 J8223).

0590

Gas-liquid chromatographic methods for the determination of disulfoton, phorate, oxydemeton-methyl, and their toxic metabolites in asparagus tissue and soil.

Szeto, S.Y. JAFCA. Brown, M.J. Washington : American Chemical Society. Journal of agricultural and food chemistry. Nov/Dec 1982. v. 30 (6). p. 1082-1086. Includes references. (NAL Call No.: 381 J8223).

0591

Herbicidal metabolites from a soil-dwelling fungus (*Scopulariopsis brumptii*).

WEESA6. Huang, J. Putnam, A.R.; Werner, G.M.; Mishra, S.K.; Whitenack, C. Champaign, Ill. : Weed Science Society of America. The fungus *Scopulariopsis brumptii* Salvanet-Duval (MSU 42018) was isolated from a soil sample

(PESTICIDES - GENERAL)

collected from the rhizosphere of a potted asparagus plant. When cultured 7 days in A-9 broth medium, the organism produced compounds phytotoxic to seedling dicotyledonous weeds (via foliar application) and to *Chlamydomonas reinhardtii* Dangeard. Three herbicidal metabolites, 3-hydroxybenzyl alcohol, 2-methylhydroquinone, and (+)-epiepoformin, were isolated by column and thin-layer chromatography (TLC) and structures confirmed by Fourier transform infrared spectroscopy (FT-IR), nuclear magnetic resonance spectroscopy (NMR), and mass spectrometry (MS). Of the three compounds, (+)-epiepoformin was the most active, providing complete control of redroot pigweed and 88% control of white mustard when applied at 4.4 kg/ha. Weed science. Jan 1989. v. 37 (1). p. 123-128. ill. Includes references. (NAL Call No.: DNAL 79.8 W41).

0592

Influence of application time on clomazone activity in no-till soybeans, *Glycine max*. WEESA6. Werling, V.L. Buhler, D.D. Champaign, Ill. : Weed Science Society of America. Clomazone at 0.7 kg ai/ha or more, applied early preplant, completely controlled weeds before planting of no-till soybeans. Under low weed density (57 plants/m² in untreated control) in 1985, grass weed control was nearly complete and not affected by clomazone application time. Late-season broadleaf weed control was less with preemergence application of clomazone at 1.1 or 1.4 kg/ha than with an early preplant or early preplant-preemergence split application of the same clomazone rate. Addition of metribuzin at 0.2 kg ai/ha overcame this control deficiency. Under greater weed densities (330 plants/m² in untreated control) during 1986 and 1987, early preplant-preemergence split applications gave the greatest control of both grass and broadleaf weeds throughout the growing seasons. Preemergence application of clomazone failed to completely control common lambsquarters emerged at the time of application. Early preplant applications failed to maintain redroot pigweed control throughout the season. Differences in soybean yield were attributed to differences in weed control. No significant carryover of clomazone residue was detected through greenhouse or field bioassays. Weed science. Sept 1988. v. 36 (5). p. 629-635. Includes references. (NAL Call No.: DNAL 79.8 W41).

0593

Lettuce and endive cultivar tolerance to thiobencarb. OARCB. Gorski, S.F. Ruizzo, M.A.; Hassell, R.L. Wooster, Ohio : The Center. Research circular - Ohio Agricultural Research and Development Center. Sept 1985. (288). p. 4-6. Includes references. (NAL Call No.: DNAL 100 OH3R).

0594

Oxamyl residues on eggplant.

Thompson, N.P. Guinivan, R.A.; Bardalaye, P.C.; Poe, S. s.l., The Society. Proceedings of the ... annual meeting of the Florida State Horticultural Society. 1980 (pub 1981). v. 93. p. 280-281. ill. 3 ref. (NAL Call No.: 81 F66).

0595

Persistence of (the insecticide) fensulfothion in a sandy-loam soil and uptake by rutabagas, carrots and radishes using microplots.

Greenhalgh, R. Read, D.C. New York, Marcel Dekker. Journal of environmental science and health. Part B: Pesticides, food contaminants, and agricultural wastes. 1981. v. B16 (3). p. 363-379. ill. 15 ref. (NAL Call No.: TD172.J61).

0596

Preemergent and early postemergent weed control on garlic.

Penhallegon, R.H. William, R.D. S.I. : The Society. Research progress report - Western Society of Weed Science. 1988. p. 112-113. (NAL Call No.: DNAL 79.9 W52R).

0597

Residual toxicity of fensulfothion in soil and uptake of toxic residues by rutabagas and carrots during wet and dry growing seasons.

Read, D.C. Greenhalgh, R. College Park, Md., Entomological Society of America. Journal of economic entomology. June 1981. v. 74 (3). p. 319-322. 6 ref. (NAL Call No.: 421 J822).

0598

Residues of carbofuran and its two carbamate metabolites in field-treated rutabaga (Insecticide residues).

Ragab, M.T.H. JPFCD. Abdel-Kader, M.H.K.; Ivany, J.A. New York : Marcel Dekker. Journal of environmental science and health. Part B. Pesticides, food contaminants, and agricultural wastes. 1983. v. 18 (2). p. 301-304. Includes references. (NAL Call No.: TD172.J61).

0599

Response of winter rape to clopyralid and pyridate.

Callihan, R.H. Lass, L. S.I. : The Society. Research progress report - Western Society of Weed Science. 1988. p. 284-285. (NAL Call No.: DNAL 79.9 W52R).

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0600

Soil metabolism of carbofuran in cauliflower and brussels sprouts cultures.

TXECP. Rouchaud, J. Roucourt, P.; Maraité, H.; Steene, F. van de; Pelerents, C.; Benoit, F.; Ceustersmans, N.; Vanparys, L. New York, N.Y. : Gordon and Breach Science Publishers. Toxicological and environmental chemistry. 1987. v. 16 (1). p. 39-50. Includes references. (NAL Call No.: DNAL QD241.T6).

weeds, insects, diseases, and nematodes on six vegetable crops in Florida. The six vegetable crops included cabbage, celery, lettuce, sweet corn, tomatoes, and watermelon. About 4.6 million acre-treatments were made ranging from 2.2 million for tomatoes to 148,800 for cabbage. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. July 1981. Available from NTIS. July 1981. (AGESS810708). 23 p. 6 ref. (NAL Call No.: 916762(AGE)).

0601

Stability of chloroplastic triazine resistance in rutabaga backcross generations.

PLPNA. Ali, A. Buerst, E.P.; Arntzen, C.J.; Machado, V.S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1986. v. 80 (2). p. 511-514. Includes 26 references. (NAL Call No.: DNAL 450 P692).

0602

Time course of induction of cytochrome P-450, NADPH-cytochrome c reductase, and cinnamic acid hydroxylase by phenobarbital, ethanol, herbicides, and manganese in higher plant microsomes (Jerusalem artichokes).

Reichhart, D. Salaun, J.P.; Benveniste, I.; Durst, F. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Oct 1980. v. 66 (4). p. 600-604. ill. 27-ref. (NAL Call No.: 450 P692).

0603

Vegetables varieties of sweet potatoes, onions, melons, celery, beans, cabbage, cauliflower, and tomatoes ; Insecticides / R.H. Price .
Price, R. H. 1864-. College Station, Tex. : Texas Agricultural Experiment Station, 1895. Cover title. p. 607-651 : ill. ; 23 cm. (NAL Call No.: DNAL 100 T31S (1) no.36).

0604

Weed control and tolerances of Chinese cabbage and Chinese broccoli to pre and postemergence herbicides on mineral soils.

Shuler, K.D. Stall, W.M.; Locascio, S.J. S.1. : The Society. Proceedings of the ... annual meeting of the Florida State Horticulture Society. Aug 1988. v. 100. p. 224-226. Includes references. (NAL Call No.: DNAL SB319.2.F6F56).

0605

1979 pesticide use on Florida vegetables, a preliminary report.

Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: According to the 1979 Vegetable Pesticide Survey, nearly 4.6 million pounds of pesticides were used to control

SOIL BIOLOGY

0606

Effects of different endomycorrhizal fungi on five host plants grown on calcined montmorillonite clay (Apple, asparagus, leek, strawberry, oats).

Plenquette, C. Furian, V.; Fortin J.A.
Alexandria, Va., The Society. Journal of the American Society for Horticultural Science.
July 1982. v. 107 (4). p. 535-538. 16 ref. (NAL Call No.: 81 S012).

0607

P nutrition of cassava, including mycorrhizal effects on P, K, S, Zn and Ca (*Manihot esculenta*, phosphorus, potassium, sulfur, calcium) uptake.

Vander Zaag, P. Fox, R.L.; De La Pena, R.S.; Yost, R.S. Amsterdam, Elsevier Scientific Pub. Co. Field crops research. Nov 1979. v. 2 (3). p. 253-263. ill. Bibliography p. 262-263. (NAL Call No.. SB183.F5).

SOIL CHEMISTRY AND PHYSICS

0608

Degradation of disulfoton in soil and its translocation into asparagus (Control of the european asparagus aphid, *Brachycolus asparagi*).
Szeto, S.Y. JAFCA. Vernon, R.S.; Brown, M.J. Washington : American Chemical Society. Journal of agricultural and food chemistry. Mar/Apr 1983. v. 31 (2). p. 217-220. Includes references. (NAL Call No.: 381 J8223).

0609

The effect of seeding depth, soil moisture regime, and crust strength on emergence of rape cultivars (*Brassica napus*, *Brassica campestris*, comparisons, in northern Saskatchewan soils).
Nuttall, W.F. AGJOA. Madison : American Society of Agronomy. Agronomy journal. Nov/Dec 1982. v. 74 (6). p. 1018-1022. illl. 19 ref. (NAL Call No.: 4 AM34P).

0610

Effects of soil type, liming, and sludge application on zinc and cadmium availability to Swiss chard.
SOSCAK. Kuo, S. Jellum, E.J.; Baker, A.S. Baltimore, Md. : Williams & Wilkins. Soil science. Feb 1985. v. 139 (2). p. 122-130. illl. Includes references. (NAL Call No.: DNAL 56.8 S03).

0611

Gas-liquid chromatographic methods for the determination of disulfoton, phorate, oxydemeton-methyl, and their toxic metabolites in asparagus tissue and soil.
Szeto, S.Y. JAFCA. Brown, M.J. Washington : American Chemical Society. Journal of agricultural and food chemistry. Nov/Dec 1982. v. 30 (6). p. 1082-1086. Includes references. (NAL Call No.: 381 J8223).

0612

Plant availability of heavy metals in a sludge-treated soil. I. Effect of sewage sludge and soil pH on the yield and chemical composition of rape (*Brassica napus*).
Narwal, R.P. JEVQA. Singh, B.R.; Panhwar, A.R. Madison : American Society of Agronomy. Journal of environmental quality. July/Sept 1983. v. 12 (3). p. 358-365. Includes references. (NAL Call No.: QH540.J6).

0613

The relation of sulfur to soil productivity. AGJOAT. Duley, F.L. Madison, Wis. : American Society of Agronomy. From the results obtained in this study the following brief summary may be given: Flowers of sulfur partly took the place of a soluble sulfate in a nutrient solution when used in a sand medium, and had a marked effect upon the production of chlorophyll in corn plants. When used alone flowers of sulfur was slightly beneficial to the growth of corn and rape and still more beneficial to the yield of red clover on the type of soil used in these experiments. Flowers of sulfur very markedly increased the production of nodules on the roots of red clover. Flowers of sulfur was oxidized to sulfate in both sand and soil cultures. It slightly increased soil acidity, and the lime requirement was directly correlated with the amount of soluble sulfate. The nitrate content varied inversely with amount of soluble sulfate in the soil. Agronomy journal. May/June 1916. v. 8 (3). p. 156-160. Includes references. (NAL Call No.: DNAL 4 AM34P).

0614

Soil matric potential, plant water relations, and growth in asparagus.
HJHSA. Wilcox-Lee, D. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1987. v. 22 (1). p. 22-24. Includes references. (NAL Call No.: DNAL SB1.H6).

0615

Spent mushroom compost as a soil amendment for vegetables (Soil physical and chemical characteristics, Tennessee).
Wang, S.H.L. Lohr, V.I.; Coffey, D.L. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 698-702. Includes 24 references. (NAL Call No.: 81 S012).

0616

Spent mushroom compost in soilless media and its effects on the yield and quality of transplants (Lettuce, tomatoes, cucumbers, *Tagetes patula*). -
Lohr, V.I. O'Brien, R.G.; Coffey, D.L. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 693-697. Includes 23 references. (NAL Call No.: 81 S012).

0617

Water table effects on nutrient contents of
celery, lettuce and sweet corn.

TAAEA. Shih, S.F. Rosen, M. St. Joseph, Mich. :
The Society. Transactions of the ASAE -
American Society of Agricultural Engineers.
Nov/Dec 1985. v. 28 (6). p. 1867-1870. Includes
references. (NAL Call No.: DNAL 290.9 AM32T).

SOIL FERTILITY - FERTILIZERS

0618

Broccoli and cauliflower production.

Williams, D. Patterson, M.; Brown, S.; Gazaway, W.; Mitchell, C.C. Jr.; Turner, J.; Evans, C. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. July 1987. (290). 4 p. ill. (NAL Call No.: DNAL S544.3.A2C47).

DNAL SB1.H6).

0619

Cadmium-enriched sewage sludge application to acid and calcareous soils: effect on soil and nutrition of lettuce, corn, tomato, and swiss chard (California).

Mahler, R.J. Bingham, F.T.; Page, A.L.; Ryan, J.A. Madison : American Society of Agronomy. Journal of environmental quality. Oct/Dec 1982. v. 11 (4). p. 694-700. 29 ref. (NAL Call No.: QH540.J6).

0624

Effects of soil type, liming, and sludge application on zinc and cadmium availability to Swiss chard.

SOSCAK. Kuo, S. Jellum, E.J.; Baker, A.S. Baltimore, Md. : Williams & Wilkins. Soil science. Feb 1985. v. 139 (2). p. 122-130. ill. Includes references. (NAL Call No.: DNAL 56.8 S03).

0620

The effect of fertilization levels on asparagus production (in the Cumberland Plateau, yields).

Mullins, C.A. TN. Swingle, H.D. Knoxville, The Station. Tennessee farm and home science; progress report. Tennessee. Agricultural Experiment Station. Oct/Dec 1979. Oct/Dec 1979. (112). p. 33-34. ill. (NAL Call No.: 100 T25F).

0625

Growing collards in Alabama.

Williams, J.L. Gazaway, W.S.; Strother, G.; Patterson, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. In subseries: Horticulture. Apr 1987. (51). 2 p. (NAL Call No.: DNAL S544.3.A2C47).

0621

Effect of nitrogen source, plant spacing and seedling container cell size on trickle irrigated cauliflower.

Csizinsky, A.A. Stanley, C.D. S.I. : The Society. Proceedings - Soil and Crop Science Society of Florida. 1987. v. 46. p. 84-88. Includes references. (NAL Call No.: DNAL 56.9 S032).

0626

Growing rhubarb.

Colt, W.M. Beaver, G.; Simpson, W.R.; Finnigan, B. Moscow : The Service. Current information series - Cooperative Extension Service, University of Idaho. Oct 1983. (719). 3 p. ill. (NAL Call No.: DNAL 275.29 ID13IDC).

0622

The effect of sodium chloride and carbonate on the growth of asparagus /Burt L. Hartwell. John B. Smith and S.C. Damon.

Hartwell, Burt L. 1865-1939. Smith, John B._1874-; Damon, S. C._1857-. Kingston, R.I. : Agricultural Experiment Station of the Rhode Island State College, 1928. Cover title. 16 p.; 23 cm. (NAL Call No.: DNAL 100 R34S (2) no.213).

0627

Growth of asparagus transplants as influenced by nitrogen form and lime.

Precheur, R.J. JOSHB. Maynard, D.N. Alexandria : The Society. Journal of the American Society for Horticultural Science. Mar 1983. v. 108 (2). p. 169-172. ill. Includes references. (NAL Call No.: 81 S012).

0623

Effects of controlled-release phosphorus and inoculum density on the growth and mycorrhizal infection of pepper and leek transplants.

HUHSA. Waterer, D.R. Coltman, R.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. June 1988. v. 23 (3). p. 620-622. Includes references. (NAL Call No.:

0628

Impact of insecticide schedule, N and K rates and transplant container size on cauliflower yield.

AAREEZ. Csizinsky, A.A. Schuster, D.J. New York : Springer. Applied agricultural research. 1988. v. 3 (1). p. 12-16. Includes references. (NAL Call No.: DNAL S539.5.A77).

0629

Long-term sludge applications on cadmium and zinc accumulation in swiss chard and radish.

JEVQAA. Chang, A.C. Page, A.L.; Warneke, J.E. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1987. v. 16 (3). p. 217-221. Includes references. (NAL Call No.: DNAL QH540.J6).

(SOIL FERTILITY - FERTILIZERS)

0630

Plant analysis for nitrogen fertilization of asparagus.

JOSHE. Gardner, B.R. Roth, R.L. Alexandria, Va. : The Society. This study was initiated to establish critical N plant tissue levels for asparagus (*Asparagus officinalis L.*) during the fern growing season. Tissue samples for chemical analysis were taken from asparagus plants over three growing seasons. The experiment consisted of nine treatments with five levels of water ranging from 750 to 4200 mm. ha^{-1} and five levels of N fertilizer ranging from 100 to 655 kg N/ha. Only the cladophylls were sampled during the fern growing season beginning in mid-April and monthly through mid-September. Total N concentration at various sampling dates and spear yield were highly correlated. Total N concentration indicated the N status of the asparagus plant. Minimum or critical levels of total N were established for the fern growing season in the desert regions of Arizona. Journal of the American Society for Horticultural Science. Sept 1989. v. 114 (5). p. 741-745. Includes references. (NAL Call No.: DNAL 81 S012).

0631

Plant availability of heavy metals in a sludge-treated soil. II. Metal extractability compared with plant metal uptake (Fodder rape, soil pH, cadmium, nickel, lead cobalt, zinc). Singh, B.R. Narwal, R.P. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1984. v. 13 (3). p. 344-349. Includes references. (NAL Call No.: QH540.J6).

0632

A preliminary study of the influence of chlorides on the growth of certain agricultural plants. AGJOAT. Tottingham, W.E. Madison, Wis. : American Society of Agronomy. A survey of previous field and greenhouse investigations of the effects of chlorides upon the growth and composition of plants discloses extremely variable results. It is apparent that the species of plant, the type of soil, and especially the complex of factors considered as climate, greatly influence these effects. In the present investigation the introduction of potassium and sodium chlorides into water cultures but slightly affected wheat plants during the first five weeks after germination. Buckwheat grown to apparent maturity in similar cultures was decidedly affected by the application of these chlorides. Although seed production remained apparently undisturbed, the length of roots and the yield of dry matter was depressed. The least production of dry matter in leaf blades and the greatest depression of water absorption per unit of dry matter of the foliar tissue occurred in the presence of sodium chloride. The radish responded only slightly, in yield and composition, to the application of potassium and sodium chlorides

along with complete fertilizer in soil cultures in the greenhouse. Under similar conditions, increased production of dry matter and of the percentages of sugars therein resulted with the carrot, while the reverse was true of the parsnip. In the latter case sodium chloride was particularly injurious. The sugar beet gave the same general responses to chlorides as did the carrot, when grown in the greenhouse. While the roots were more watery where chlorides were applied, the yield of dry matter was greatly increased. The dry matter of such roots contained more glucose, but less sucrose, than that obtained from cultures in soil not receiving chlorides. Similar responses followed the application of common salt alone to beets grown in the field. The potato produced increased yields of dry matter in the tuber when potassium chloride was supplied in place of potassium sulfate, in a complete fertilizer ration, to soil cultures in the greenhouse. Relat. Agronomy journal. Literature review. Jan 1919. v. 11 (1). p. 1-32. Includes references. (NAL Call No.: DNAL 4 AM34P).

0633

Programming digital microprocessor control system for thermophilic composting in mushroom culture.

Schroeder, M.E. St. Joseph, Mich. : American Society of Agricultural Engineers, c1984. Agricultural electronics--1983 and beyond : proceedings of the National Conference on Agricultural Electronics Applications, December 11-13, 1983, Hyatt Regency Illinois Center, Chicago, Illinois. p. 396-401. i11. Includes 5 references. (NAL Call No.: DNAL TK7882.A37N38 1983).

0634

Relative concentrations of cadmium and zinc in tissue of selected food plants grown on sludge-treated soils.

JEVQAA. Kim, S.J. Chang, A.C.; Page, A.L.; Warneke, J.E. Madison, Wis. : American Society of Agronomy. Twelve selected food plants were grown in greenhouse pots to determine the relative concentration of Cd and Zn in the plants grown in sludge-treated soils. The relative concentration of the metal was calculated as the quotient of the metal content in a plant and that in Swiss chard (*Beta vulgaris* subsp. *cicla* (L.) Koch) grown under the same soil conditions. The relative concentrations of Cd and Zn of food plants grown in several sludge-treated soils were significantly different ($p < 0.01$), but the relative concentrations of these plants in one soil has the statistical characteristics (e.g., range, mean, median, coefficient of variation, etc.) as those in another soil. Journal of environmental quality. Oct/Dec 1988. v. 17 (4). p. 568-573. Includes references. (NAL Call No.: DNAL QH540.J6).

(SOIL FERTILITY - FERTILIZERS)

0635

Spent mushroom compost as a soil amendment for vegetables (Soil physical and chemical characteristics, Tennessee).

Wang, S.H.L. Lohr, V.I.; Coffey, D.L.
Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science.
Sept 1984. v. 109 (5). p. 698-702. Includes 24 references. (NAL Call No.: 81 S012).

0636

Why mushroom production declines with each successive break, and, the production of a second crop of Agaricus mushrooms on "spent" compost.

AAREEZ. Schisler, L.C. New York, N.Y. : Springer. It is believed toxic substances may accumulate in mushroom compost as harvesting proceeds, and these substances are responsible for decreased yield as the mushroom crop ages. Delayed release lease nutrient and an adsorbent material, a hypnum peat were added to compost at spawning. Compost receiving both hypnum peat and delayed release nutrients had significantly greater yield in later breaks than compost supplemented with delayed release nutrients alone. Respawning spent compost (completely cropped mushroom compost) with the addition of delayed release nutrients and a hypnum peat resulted in a generous second crop of mushrooms on the same compost. This approach to regulating metabolism of mushroom mycelium by adding adsorbants to remove accumulated toxic substances and replenishing the compost nutrient base at spawning or to spent compost, opens a whole new field for study of yield regulation. This technology may influence cropping techniques at mushroom farms worldwide by reducing the need for bulk compost ingredients by as much as 50%. Applied agricultural research. Winter 1990. v. 5 (1). p. 44-47. ill. Includes references. (NAL Call No.: DNAL S539.5.A77).

SOIL RESOURCES AND MANAGEMENT

0637

No artichokes!!! Would life be bearable without specialty crops? (Need for conservation of farm lands and pollution control, includes history of commercial horticulture in California).

Briggs, D.H. Wyman, H.C. Washington, D.C. : U.S. Department of Agriculture. The Yearbook of agriculture. 1983. 1983. p. 476-483. ill. (NAL Call No.: 1 AG84Y).

SOIL CULTIVATION

0638

Cassava-cowpea and cassava-peanut intercropping. II. Leaf area index and dry matter accumulation.

AGJOAT. Mason, S.C. Leihner, D.E.; Vorst, J.J.; Salazar, E. Madison, Wis. : American Society of Agronomy. *Agronomy journal*. Jan/Feb 1986. v. 78 (1). p. 47-53. Includes references. (NAL Call No.: DNAL 4 AM34P).

0639

Cassava-cowpea and cassava-peanut intercropping. III. Nutrient concentrations and removal.

AGJOAT. Mason, S.C. Leihner, D.E.; Vorst, J.J. Madison, Wis. : American Society of Agronomy. *Agronomy journal*. May/June 1986. v. 78 (3). p. 441-444. Includes references. (NAL Call No.: DNAL 4 AM34P).

0640

Influence of different types of mulches on eggplant production.

HJHSA. Carter, J. Johnson, C. Alexandria, Va. : American Society for Horticultural Science. *HortScience*. Feb 1988. v. 23 (1). p. 143-145. Includes references. (NAL Call No.: DNAL SB1.H6).

0641

The influence of herbicide formulation on weed control in four tillage systems.

WEESA6. Johnson, M.D. Wyse, D.L.; Lueschen, W.E. Champaign, Ill. : Weed Science Society of America. The objectives of this research were to compare the weed control efficacy of liquid, granular, and microencapsulated formulations of preemergence herbicides in moldboard plow, chisel plow, ridge tillage, and no-tillage corn and soybean production systems, and to determine whether herbicide formulation can influence herbicide interception and retention on surface corn residue. Common lambsquarters populations were threefold higher in corn than in soybeans. A mixed population of giant foxtail and green foxtail was highest in the chisel plow and lowest in the ridge tillage system as were total weed numbers. Percent weed control was not influenced by tillage when considered across all herbicide treatments. Weed control was not influenced by herbicide formulation in the moldboard plow, chisel plow, or ridge tillage systems, but granular herbicide applications provided better weed control than liquid applications in the no-tillage system and across various rates of corn residue in an experiment with no tillage variables. Two- to threefold less granular-applied herbicide was intercepted by surface corn residue at the time of application compared to liquid-applied herbicide. Increasing amounts of postapplication rainfall decreased the difference among formulations with regard to both total soil reception of the

herbicide and resultant weed control. There was no consistent advantage for the microencapsulated formulation over the other herbicide formulations. Surface corn residue controlled many weeds without the aid of a herbicide and actually contributed to overall weed control even where herbicides were applied. This suggests that the binding of preemergence herbicides on surface crop residue may not be the cause of weed control failures in reduced-tillage systems as is often assumed to be the case. *Weed science*. Mar 1989. v. 37 (2). p. 239-249. Includes references. (NAL Call No.: DNAL 79.8 W41).

0642

Mushroom-growing medium (A liquid mixture containing sources of soluble carbon and nitrogen is fermented and mixed with cellulosic material; the so-treated cellulosic material is held at a temperature and for a time sufficient to allow substantial reduction of organisms damaging to mushroom culture; the cellulosic material then is cooled to a temperature suitable for spawning; citation only).

Kurtzman, R.H. Jr. Washington, D.C. : The Office. United States patent - United States Patent Office. June 8, 1982. Copies of USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231. June 8, 1982. (4,333,757). 5 p. Includes references. (NAL Call No.: NO CALL NO. (PAT)).

0643

Weed control in seeded cabbage, mustard greens, spinach and in transplanted broccoli grown under conservation tillage practices.

JRGVA. Menges, R.M. Heilman, M.D. Weslaco : The Society. *Journal of the Rio Grande Valley Horticultural Society*. 1986. v. 39. p. 83-89. Includes references. (NAL Call No.: DNAL 81 L95).

ENTOMOLOGY RELATED

0644

The asparagus beetles and their control /F.H.
Chittenden.

Chittenden, F. H. 1858-1929. Washington, D.C. :
U.S. Dept. of Agriculture, 1917. Cover title.~
"Contribution from the Bureau of Entomology.".
15 p. : ill. ; 23 cm. Bibliography: p. 14-15.
(NAL Call No.: DNAL 1 Ag84F no.837).

0645

The asparagus beetles and their control F.H.
Chittenden. --.

Chittenden, F. H. Washington, D.C. : U.S. Dept.
of Agriculture, 1917. 15 p. : ill., map --.
Bibliography: p. 14-15. (NAL Call No.: DNAL
Fiche S-70 no.837).

0646

Field tests with the musk thistle insects
Trichosirocalus (Ceuthorhynchidius) horridus
and *Ceutorhynchus trimaculatus* to determine
their impact on artichoke (Biological control
of weeds).

Rizza, A. Spencer, N.R. College Park, Md.,
Entomological Society of America. Environmental
entomology. June 1981. v. 10 (3). p. 332-334.
ill. 8 ref. (NAL Call No.: QL461.E532).

0647

Heliothis subflexa (GN.) (Lepidoptera:
Noctuidae): demonstration of oviposition
stimulant from groundcherry using novel
bioassay.

JCECD. Mitchell, E.R. Heath, R.R. New York,
N.Y. : Plenum Press. Journal of chemical
ecology. Aug 1987. .v. 13 (8). p. 1849-1858.
ill. Includes references. (NAL Call No.: DNAL
QD415.A1J6).

0648

Life history of a sciarid fly, *Lycoriella mali*,
and its injury threshold on the commercial
mushroom (Includes taxonomy).

Kielbasa, R.PAABA. Snetsinger, R. University
Park : The Station. Bulletin - Pennsylvania
State University, Agricultural Experiment
Station. Dec 1980. Dec 1980. (833). 14 p. ill.
3 p. ref. (NAL Call No.: 100 P381).

APICULTURE RELATED

0649

Effects on honey-bee colonies following application of the pyrethroids cypermethrin and PP 321 in flowering oilseed rape.

ABUOA. Fries, I. Wibran, K. Hamilton, Ill. : Dadant & Sons. American bee journal. Apr 1987. v. 127 (4). p. 266-269. Includes references. (NAL Call No.: DNAL 424.8 AM3).

ANIMAL REPRODUCTION

0650

Heliothis subflexa (GN.) (Lepidoptera:
Noctuidae): demonstration of oviposition
stimulant from groundcherry using novel
bioassay.

JCECD. Mitchell, E.R. Heath, R.R. New York,
N.Y. : Plenum Press. Journal of chemical
ecology. Aug 1987. .v. 13 (8). p. 1849-1858.
ill. Includes references. (NAL Call No.: DNAL
QD415.A1J6).

ANIMAL TAXONOMY AND GEOGRAPHY

0651

Life history of a sciarid fly, *Lycoriella mali*,
and its injury threshold on the commercial
mushroom (Includes taxonomy).

Kielbasa, R.PAABA. Snetsinger, R. University
Park : The Station. Bulletin - Pennsylvania
State University, Agricultural Experiment
Station. Dec 1980. Dec 1980. (833). 14 p. ill.
3 p. ref. (NAL Call No.: 100 P381).

AQUATIC BIOLOGY AND ECOLOGY - PLANTS

0652 0653

Watercress and amphipods: Potential chemical defense in a spring macrophyte. Watercress and amphipods: Potential chemical defense in a spring macrophyte.

JCECD. JCECD. Newman, R.M. Newman, R.M. Kerfoot, W.C.; Hanscom, Z. III. Kerfoot, W.C.; Hanscom, Z. III. New York, N.Y. : Plenum Press. New York, N.Y. : Plenum Press. Journal of chemical ecology. Journal of chemical ecology. Jan 1990. v. 16 (1). Jan 1990. v. 16 (1). p. 245-259. p. 245-259. Includes references. Includes references. (NAL Call No.: DNAL QD415.A1J6). (NAL Call No.: DNAL QD415.A1J6).

NONFOOD AND NONFEED

0654

Characterization of cyanogenic beta-glucosidase
(linamarase) from cassava (*Manihot esculenta*
Crantz).

ABBIA. Eksittikul, T. Chulavatnatol, M. Duluth,
Minn. : Academic Press. Archives of
biochemistry and biophysics. Oct 1988. v. 266
(1). p. 263-269. Includes references. (NAL Call
No.: DNAL 381 AR2).

0655

Herbicidal metabolites from a soil-dwelling
fungus (*Scopulariopsis brumptii*).

WEESA6. Huang, J. Putnam, A.R.; Werner, G.M.;
Mishra, S.K.; Whitenack, C. Champaign, Ill. :
Weed Science Society of America. The fungus
Scopulariopsis brumptii Salvanet-Duval (MSU
42018) was isolated from a soil sample
collected from the rhizosphere of a potted
asparagus plant. When cultured 7 days in A-9
broth medium, the organism produced compounds
phytotoxic to seeding dicotyledonous weeds (via
foliar application) and to *Chlamydomonas*
reinhardtii Dangeard. Three herbicidal
metabolites, 3-hydroxybenzyl alcohol,
2-methylhydroquinone, and (+)-epiepoformin,
were isolated by column and thin-layer
chromatography (TLC) and structures confirmed
by Fourier transform infrared spectroscopy
(FT-IR), nuclear magnetic resonance
spectroscopy (NMR), and mass spectrometry (MS).
Of the three compounds, (+)-epiepoformin was
the most active, providing complete control of
redroot pigweed and 88% control of white
mustard when applied at 4.4 kg/ha. Weed
science. Jan 1989. v. 37 (1). p. 123-128. ill.
Includes references. (NAL Call No.: DNAL 79.8
W41).

0656

Research on bamboo.

WOSTBE. Liese, W. Secaucus, N.J. :
Springer-Verlag New York Inc. Wood science and
technology. Literature review. 1987. v. 21 (3).
p. 189-209. ill. Includes references. (NAL Call
No.: DNAL SD433.A1W6).

STRUCTURES AND STRUCTURAL EQUIPMENT

0657

**Cyanide fumigation of mushroom houses /by A.C.
Davis and H.V. Claborn.**

Davis, A. C. 1901-1942. Claborn, H. V. 1904-.
Washington, D.C. : U.S. Dept. of Agriculture,
1935. Caption title. "Contribution from Bureau
of Entomology and Plant Quarantine." 10 p. :
charts ; 23 cm. (NAL Call No.: DNAL 1 Ag84C
no.364).

0658

Outwitting biological heat patterns.

AGENA. Schroeder, M.E. St. Joseph, Mich. :
American Society of Agricultural Engineers.
Agricultural engineering. May/June 1986. v. 67
(3). p. 18-19. (NAL Call No.: DNAL 58.8 AG83).

FARM EQUIPMENT

0659

**Effects of black plastic mulch and row covers
on the growth and performance of eggplant
intercropped with mustard greens.**

Brown, J.E. Lewis, G.A.; Carden, E.L.;
McDaniel, R.N. Peoria, Ill. : National
Agricultural Plastics Association. Proceedings
of the ... National Agricultural Plastics
Congress. 1986. (19th). p. 384-395. Includes
references. (NAL Call No.: DNAL 309.9 N216).

DRAINAGE AND IRRIGATION

0660

Drip chemigation of asparagus with disulfoton: Brachycorynella asparagi (Homoptera: Aphididae) control and disulfoton degradation.
JEENAI. Wildman, T.E. Cone, W.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. Dec 1986. v. 79 (6). p. 1617-1620. Includes references. (NAL Call No.: DNAL 421 J822).

0661

Effect of nitrogen source, plant spacing and seedling container cell size on trickle irrigated cauliflower.

Csizinszky, A.A. Stanley, C.D. S.I. : The Society. Proceedings - Soil and Crop Science Society of Florida. 1987. v. 46. p. 84-88. Includes references. (NAL Call No.: DNAL 56.9 S032).

0662

Effect of overhead sprinkler irrigation on watercress yield, quality, and leaf temperature.

McHugh, J.J. Nishimoto, R.K. Alexandria, Va., American Society for Horticultural Science. HortScience. Dec 1980. v. 15 (6). p. 801-802. 9 ref. (NAL Call No.: SB1.H6).

0663

Plant analysis for nitrogen fertilization of asparagus.

JOSH. Gardner, B.R. Roth, R.L. Alexandria, Va. : The Society. This study was initiated to establish critical N plant tissue levels for asparagus (*Asparagus officinalis* L.) during the fern growing season. Tissue samples for chemical analysis were taken from asparagus plants over three growing seasons. The experiment consisted of nine treatments with five levels of water ranging from 750 to 4200 mm.ha⁻¹ and five levels of N fertilizer ranging from 100 to 655 kg N/ha. Only the cladophylls were sampled during the fern growing season beginning in mid-April and monthly through mid-September. Total N concentration at various sampling dates and spear yield were highly correlated. Total N concentration indicated the N status of the asparagus plant. Minimum or critical levels of total N were established for the fern growing season in the desert regions of Arizona. Journal of the American Society for Horticultural Science. Sept 1989. v. 114 (5). p. 741-745. Includes references. (NAL Call No.: DNAL 81 S012).

0664

Seedling volunteer asparagus, *Asparagus officinalis*, control with herbicides.
WETEE9. Boydston, R.A. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. July 1988. v. 2 (3). p. 294-298. Includes references. (NAL Call No.: DNAL SB610.W39).

FOOD SCIENCE AND FOOD PRODUCTS

0665

Parsley production for fresh market.

Rabin, J. West Lafayette, Indiana : The Station. Station bulletin - Purdue University, Agricultural Experiment Station. Paper presented at the Second National Herb Growing and Marketing Conference, July 19-22, 1987, Indianapolis, Indiana. 1987. (530). p. 43-47. Includes references. (NAL Call No.: DNAL HD1775.I6I5).

0666

Research on bamboo.

WOSTBE. Liese, W. Secaucus, N.J. : Springer-Verlag New York Inc. Wood science and technology. Literature review. 1987. v. 21 (3). p. 189-209. ill. Includes references. (NAL Call No.: DNAL SD433.A1W6).

FOOD PROCESSING, HORTICULTURAL CROP

0667

The genus Allium. 1.

CRFND. Fenwick, G.R. Hanley, A.B. Boca Raton, Fla. : CRC Press. Abstract: The first part of a comprehensive 2-part review on members of the Allium family (e.g., onion, garlic, chives, leek, rakkyo) examines: their production; botanical characteristics; reduction, due to fungal attack and pest damage; agricultural development; and food processing quality. The medicinal properties of garlic and onion oils are assessed, including the anti-fungal, anti-microbial, and insecticidal properties of these oils. The agricultural development of onion is stressed covering cultivation, harvesting, curing, storage conditions with respect to cultivar type, and irradiation to prevent sprouting. A list of 1060 literature citations is appended. (WZ). CRC critical reviews in food science and nutrition. 1985. v. 22 (3). p. 199-271. charts. Includes 1060 references. (NAL Call No.: DNAL TP368.C7).

0668

Market diseases of beets, chicory, endive, escarole, globe artichokes, lettuce, rhubarb, spinach, and sweetpotatoes /H.E. Moline and W.J. Lipton.

Moline, Harold E. Lipton, Werner J.,_1929-. Washington, D.C.? : U.S. Dept. of Agriculture, Agricultural Research Service : Supt. of Docs., U.S. G.P.O., distributor , 1987. v. 86 p. : col. ill. ; 22 cm. Includes bibliographies. (NAL Call No.: DNAL 1 Ag84Ah no. 155 1987).

0669

Polyphenol oxidase activity and enzymatic browning in mushrooms.

ACSMC. Flurkey, W.H. Ingebrigsten, J. Washington, D.C. : The Society. ACS Symposium series - American Chemical Society. In the series analytic: Quality Factors of Fruits and Vegetables / edited by Joseph J. Jen.~ Literature review. 1989. (405). p. 44-54. Includes references. (NAL Call No.: DNAL QD1.A45).

FOOD STORAGE

0670

Disinfestation of wheat germ, wheat, and dried mushrooms by irradiation.

Kovacs, E. Kiss, I.; Kuroli, G. Honolulu : Hawaii Institute of Tropical Agric. & Human Resources, Univ. of Hawaii, Manoa, 1985.
Radiation disinfection of food and agricultural products : proceedings of an international conference, Honolulu, Hawaii, November 14-18, 1983 / edited by James H. Moy. p. 189-198. Includes 6 references. (NAL Call No.: DNAL TP371.8.R284).

FOOD STORAGE, HORTICULTURAL CROP

0671

Chilling injury of eggplant fruits / by Lacy P.

McColloch .

McColloch, Lacy Porter, 1907-. Washington, D.C. : Agricultural Research Service, U.S. Dept. of Agriculture, 1966. Cover title. 5 p. : ill. ; 23 cm. (NAL Call No.: DNAL 1 Ag84Mr no.749).

0672

Eggplant.

Nothmann, J. Boca Raton, Fla. : CRC Press, 1986. CRC handbook of fruit set and development / edited by Shaul P. Monselise. Literature review. p. 145-152. ill. Includes references. (NAL Call No.: DNAL SB357.28.C73).

0673

Growth of Aeromonas hydrophila on fresh vegetables stored under a controlled atmosphere.

APMBA. Berrang, M.E. Brackett, R.E.; Beuchat, L.R. Washington, D.C. : American Society for Microbiology. The effects of controlled-atmosphere storage (CAS) on the survival and growth of *Aeromonas hydrophila* on fresh asparagus, broccoli, and cauliflower were examined. Two lots of each vegetable were inoculated with *A. hydrophila* 1653 or K144. A third lot served as an uninoculated control. Following inoculation, vegetables were stored at 4 or 15 degrees C under a CAS system previously shown to extend the shelf life of each commodity or under ambient air. Populations of *A. hydrophila* were enumerated on the initial day of inoculation and at various intervals for 10 days (15 degrees C) or 21 days (4 degrees C) of storage. Direct plating of samples with selective media was used to enumerate *A. hydrophila*. The organism was detected on most lots of vegetables as they were received from a commercial produce supplier. Without exception, the CAS system lengthened the time vegetables were subjectively considered acceptable for consumption. However, CAS did not significantly affect populations of *A. hydrophila* which survived or grew on inoculated vegetables. Applied and environmental microbiology. Sept 1989. v. 55 (9). p. 2167-2171. Includes references. (NAL Call No.: DNAL 448.3 AP5).

MICROBIOLOGY OF FOOD PROCESSING

0674

Production of alcohol from Jerusalem artichokes
by yeasts (*Saccharomyces diastaticus*,
Saccharomyces cerevisiae, *Kluyveromyces*
fragilis).

Duvnjak, Z.BIBIA. Kosaric, N.; Kliza, S. New
York : John Wiley & Sons. Biotechnology and
bioengineering. Nov 1982. v. 24 (11). p.
2297-2308. Includes references. (NAL Call No.:
381 J8224).

FOOD CONTAMINATION AND TOXICOLOGY

0675

Aflatoxin production on two mushroom substrates (*Boletus edulis*, *Agaricus bisporus*, *Aspergillus flavus*, *Aspergillus parasiticus*).
Llewellyn, G.C.JFSA. Martin, W.A. Jr.; Bean, G.A. Westport : Food & Nutrition Press. Journal of food safety. 1983. v. 5 (3). p. 113-118.
Includes references. (NAL Call No.: TP373.5.J62).

0676

Agaritine content of fresh and processed mushrooms (*Agaricus bisporus* (Lange) Imbach).
Liu, J.W.JFDSA. Beelman, R.B.; Lineback, D.R.; Speroni, J.J. Chicago : Institute of Food Technologists. Journal of food science. Sept/Oct 1982. v. 47 (5). p. 1542-1544, 1548.
Includes references. (NAL Call No.: 389.8 F7322).

0677

High performance liquid chromatographic determination of agaritine in cultivated mushrooms (*Agaricus bisporus*).
Speroni, J.J.JFDSA. Beelman, R.B. Chicago : Institute of Food Technologists. Journal of food science. Sept/Oct 1982. v. 47 (5). p. 1539-1541. Includes references. (NAL Call No.: 389.8 F7322).

0678

The Mushroom industry (Jan. 72-May 81) : citations from the Food Science and Technology Abstracts Data Base. -. Storrs, Conn. New England Research Application Center Springfield, Va. National Technical Information Service 1981. NT4269 ~PB81-866733 ~Includes index. 34 leaves in various foliations ; 28 cm. (NAL Call No.: Z5074.M9M9).

0679

Poisonous and edible mushrooms.
KAEBA. Garman, H. Lexington : The Station. Bulletin - Kentucky, Agricultural Experiment Station. Documents available from: Agriculture Library, Agricultural Science Center - North, University of Kentucky, Lexington, Ky. 40546-0091. Nov 1901. (96,pt.3). p. 215-222. plates.. (NAL Call No.: DNAL 100 K41 (2)).

0680

Relationship between uptake of mercury vapor by mushrooms and its catalase activity (Shiitake). Ogata, M. Kenmotsu, K.; Hirota, N.; Naito, M. New York, Springer. Bulletin of environmental contamination and toxicology. Dec 1981. v. 27 (6). p. 816-820. Includes ref. (NAL Call No.: RA1270.P35A1).

FOOD CONTAMINATION, FIELD CROP

0681

Diflubenzuron and BAY SIR 8514 in mushrooms
grown in treated compost or casing.

Argauer, R.J. Cantelo, W.W. College Park, Md. :
Entomological Society of America. Journal of
economic entomology. Apr 1984. v. 77 (2). p.
462-467. Includes references. (NAL Call No.:
421 J822).

0682

Extraction efficiencies for pesticides in
crops: ¹⁴C (carbon isotope)-benomyl extraction
from mustard greens and radishes.

Wheeler, W.B. Thompson, N.P.; Andrade, P.;
Krause, R.T. Arlington, Va., The Association.
Journal of the Association of Official
Analytical Chemists. Nov 1980. v. 63 (6). p.
1286-1290. 9 ref. (NAL Call No.: 381 AS7).

FOOD CONTAMINATION, HORTICULTURAL CROP

0683

Acridity of taro and related plants (*Colocasia esculenta*, dietary effect, *Arum triphyllum*).
Tang, C.S. Sakai, W.S. Honolulu : University of Hawaii Press, c1983. Taro : a review of *Colocasia esculenta* and its potentials / edited by Jaw-Kai Wang. p. 148-163. ill. Includes references. (NAL Call No.: SB211.T2T37).

0684

Capillary gas chromatographic determination of prometry and its degradation products in parsley.
JANCA2. Bardalye, P.C. Wheeler, W.B. Arlington, Va. : The Association. Journal of the Association of Official Analytical Chemists. July/Aug 1985. v. 68 (4). p. 750-753. Includes 5 references. (NAL Call No.: DNAL 381 AS7).

0685

Persistence of (the insecticide) fensulfothion in a sandy-loam soil and uptake by rutabagas, carrots and radishes using microplots.
Greenhalgh, R. Read, D.C. New York, Marcel Dekker. Journal of environmental science and health. Part B: Pesticides, food contaminants, and agricultural wastes. 1981. v. B16 (3). p. 363-379. ill. 15 ref. (NAL Call No.: TD172.J61).

0686

Residual toxicity of fensulfothion in soil and uptake of toxic residues by rutabagas and carrots during wet and dry growing seasons.
Read, D.C. Greenhalgh, R. College Park, Md., Entomological Society of America. Journal of economic entomology. June 1981. v. 74 (3). p. 319-322. 6 ref. (NAL Call No.: 421 J822).

0687

Residues of carbofuran and its two carbamate metabolites in field-treated rutabaga (Insecticide residues).
Ragab, M.T.H. JPFCD. Abdel-Kader, M.H.K.; Ivany, J.A. New York : Marcel Dekker. Journal of environmental science and health. Part B. Pesticides, food contaminants, and agricultural wastes. 1983. v. 18 (2). p. 301-304. Includes references. (NAL Call No.: TD172.J61).

FOOD COMPOSITION, HORTICULTURAL CROP

0688

The amino acid composition of cassava leaves, foliage, root tissues and whole-root chips.
NURIB. Gomez, G. Noma, A.T. Los Altos, Calif. :
Geron-X, Inc. Nutrition reports international.
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0689

Ca, fe and Zn content of 'Jewel' sweet potato greens as affected by harvesting practices.
JFDAZ. Pace, R.D. Sibiya, T.E.; Phills, B.R.;
Dull, G.G. Chicago, Ill. : The Institute. A total of 64 "Jewel" sweet potato green samples collected at the end of the growing season, were analyzed to determine and compare the effects of multiple topping on dry matter, calcium, iron and zinc contents of "younger" 4-inch leaf and stem-petiole tips with "older" 4-inch portions of the same material. Older material contained the highest concentration of the minerals, and the concentration in both "young" and "old" plant material was unaffected by yearly planting. When the mineral content was compared to the Recommended Daily Dietary Allowance for adults it was relatively good. Journal of food science : an official publication of the Institute of Food Technologists. July/Aug 1985. v. 50 (4). p. 940-941. Includes references. (NAL Call No.: DNAL 389.8 F7322).

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0691

Triterpene alcohols, 4-methylsterols and 4-desmethylsterols of eggplant seed oil: a new phytosterol.
LPDSAP. Farines, M. Cocalllemen, S.; Soulier, J. Champaign, Ill. : American Oil Chemists' Society. Lipids. Apr 1988. v. 23 (4). p. 349-354. Includes references. (NAL Call No.: DNAL QP751.L5).

FEED PROCESSING AND STORAGE

0692

Delignification of wheat straw by *Pleurotus* spp. under mushroom-growing conditions.
APMBA. Tsang, L.J. Reid, I.D.; Coxworth, E.C.
Washington, D.C. : American Society for
Microbiology. Applied and Environmental
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AGRICULTURAL PRODUCTS - PLANT

0693

Characterization of cyanogenic beta-glucosidase (linamarase) from cassava (*Manihot esculenta* Crantz).

ABBIA. Eksittikul, T. Chulavatnatol, M. Duluth, Minn. : Academic Press. Archives of biochemistry and biophysics. Oct 1988. v. 266 (1). p. 263-269. Includes references. (NAL Call No.: DNAL 381 AR2).

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Herbicidal metabolites from a soil-dwelling fungus (*Scopulariopsis brumptii*).

WEESA6. Huang, J. Putnam, A.R.; Werner, G.M.; Mishra, S.K.; Whitenack, C. Champaign, Ill. : Weed Science Society of America. The fungus *Scopulariopsis brumptii* Salvanet-Duval (MSU 42018) was isolated from a soil sample collected from the rhizosphere of a potted asparagus plant. When cultured 7 days in A-9 broth medium, the organism produced compounds phytotoxic to seedling dicotyledonous weeds (via foliar application) and to *Chlamydomonas reinhardtii* Dangeard. Three herbicidal metabolites, 3-hydroxybenzyl alcohol, 2-methylhydroquinone, and (+)-epiepoformin, were isolated by column and thin-layer chromatography (TLC) and structures confirmed by Fourier transform infrared spectroscopy (FT-IR), nuclear magnetic resonance spectroscopy (NMR), and mass spectrometry (MS). Of the three compounds, (+)-epiepoformin was the most active, providing complete control of redroot pigweed and 88% control of white mustard when applied at 4.4 kg/ha. Weed science. Jan 1989. v. 37 (1). p. 123-128. ill. Includes references. (NAL Call No.: DNAL 79.8 W41).

0695

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WOSTBE. Liese, W. Secaucus, N.J. : Springer-Verlag New York Inc. Wood science and technology. Literature review. 1987. v. 21 (3). p. 189-209. ill. Includes references. (NAL Call No.: DNAL SD433.A1W6).

POLLUTION

0696

Bioaccumulation of Hg in the mushroom Pleurotus ostreatus.

EESAD. Bressa, G. Cima, L.; Costa, P. Duluth, Minn. : Academic Press. Ecotoxicology and environmental safety. Oct 1988. v. 16 (2). p. 85-89. ill. Includes references. (NAL Call No.: DNAL QH545.A1E29).

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0699

Long-term sludge applications on cadmium and zinc accumulation in swiss chard and radish.
JEVQAA. Chang, A.C. Page, A.L.; Warneke, J.E. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1987. v. 16 (3). p. 217-221. Includes references. (NAL Call No.: DNAL QH540.J6).

0700

No artichokes!!! Would life be bearable without specialty crops? (Need for conservation of farm lands and pollution control, includes history of commercial horticulture in California).

Briggs, D.H. Wyman, H.C. Washington, D.C. : U.S. Department of Agriculture. The Yearbook of agriculture. 1983. 1983. p. 476-483. ill. (NAL Call No.: 1 AG84Y).

0701

Plant availability of heavy metals in a sludge-treated soil. I. Effect of sewage sludge and soil pH on the yield and chemical composition of rape (*Brassica napus*).

Narwal, R.P. JEVQA. Singh, B.R.; Panhwar, A.R. Madison : American Society of Agronomy. Journal of environmental quality. July/Sept 1983. v. 12 (3). p. 358-365. Includes references. (NAL Call No.: QH540.J6).

0702

Residues of carbofuran and its two carbamate metabolites in field-treated rutabaga (Insecticide residues).

Ragab, M.T.H. JPFCD. Abdel-Kader, M.H.K.; Ivany, J.A. New York : Marcel Dekker. Journal of environmental science and health. Part B. Pesticides, food contaminants, and agricultural wastes. 1983. v. 18 (2). p. 301-304. Includes references. (NAL Call No.: TD172.J61).

MATHEMATICS AND STATISTICS

0703

Evapotranspiration studies on taro in the Everglades (*Colocasia esculenta*, Florida).
Shih, S.F. Rahi, G.S.; Snyder, G.H. St. Joseph, Mich. : The Society. Paper - American Society of Agricultural Engineers (Microfiche collection). 1982. Paper presented at the 1982 Winter Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. 1982. (fiche no. 82-2595). 1 microfiche : ill. Includes references. (NAL Call No.: FICHE S-72).

0704

Permethrin resistance in *Lycoriella mali* (Diptera: Sciaridae).
JEENAI. Brewer, K.K. Keil, C.B. Lanham, Md. : Entomological Society of America. Four colonies of *Lycoriella mali* (Fitch) collected from different mushroom farms in southeastern Pennsylvania and Delaware were examined for resistance to topically applied permethrin in laboratory studies. Low to moderate (8- to 47-fold at LD(50)) resistance was discovered in all four colonies compared with a reference strain not previously exposed to permethrin. Resistance at the LD(95) was from 34- to 67-fold. The LC(95) of three of the colonies was approximately equal to field rate for permethrin, whereas one colony's LC(95) was below the field rate. Slopes of the dose-mortality lines of the four colonies ranged from 0.82 to 1.31, suggesting a potential for higher levels of resistance in these populations with continued selection pressure. The large concentration of mushroom farms in the area, short generation time of *L. mali*, numerous applications of permethrin, and history of pesticide use are likely to have influenced the development of resistance to permethrin in this species. Journal of economic entomology. Feb 1989. v. 82 (1). p. 17-21. Includes references. (NAL Call No.: DNAL 421 J822).

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0706

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AGENA. Schroeder, M.E. St. Joseph, Mich. : American Society of Agricultural Engineers. Agricultural engineering. May/June 1986. v. 67 (3). p. 18-19. (NAL Call No.: DNAL 58.8 AG83).

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0707

Bioaccumulation of Hg in the mushroom *Pleurotus ostreatus*.

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